

A1-F18AC-460-320

1 SEPTEMBER 1999

CHANGE 2 – 15 MAY 2003

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE SYSTEM MAINTENANCE WITH IPB

FUEL SYSTEM

**NAVY MODEL
F/A-18A AND F/A-18B
161353 AND UP**

This volume is one of four volumes and is incomplete without A1-F18AC-460-300, A1-F18AC-460-310, and A1-F18AC-460-330.

This volume contains WP045 00 through WP114 02.

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0801LP1023323

NUMERICAL INDEX OF EFFECTIVE WORK PACKAGES/PAGES

List of Current Changes

Change 0 1 Sep 1999 Change 1 15 Apr 2002 Change 2 15 May 2003
(IRAC 2 included)
IRAC 1 cancelled

Only those work packages/pages assigned to the manual are listed in this index. Insert Change 2, dated 15 May 2003. Dispose of superseded and deleted work packages/pages. Superseded and deleted classified work packages/pages shall be destroyed in accordance with applicable regulations. If changed pages are issued to a work package, insert the changed pages in the applicable work package. The portion of text affected in a changed or revised work package is indicated by change bars or the change symbol "R" in the outer margin of each column of text. Changes to illustrations are indicated by pointing hands or change bars, as applicable.

WP Number	Title	WP Number	Title
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HMWS-1	Warnings Applicable to Hazardous Materials	067 00	Wing Transfer Pressure Transducer (5MTR125)
045 00	Ground Refuel/Defuel Receptacle (5VAD626)	068 00	Fuselage Transfer Pressure Transducer (5MTP126)
046 00	Fuel Check Panel (5A-B019)	069 00	Left Boost Inlet Pressure Transducer (5MTP127)
047 00	Master Precheck Valve (5VAD624)	070 00	Right Boost Inlet Pressure Transducer (5MTP128)
048 00	Individual Tank Precheck Valve (5VAF627)	071 00	Vent Tank Pressure Transducer (5MTT129)
049 00	Tank Pressure/Fuel Flow Indicator (5DSD625)	072 00	External Tanks Air Pressure Transducer (5MTR130)
050 00	Fuel Flow Sensor (5VAD645)	072 01	External Tanks Air Pressure Transducer (5MTR130), 161353 thru 161741
051 00	Wing Refuel Lockout Valve (5L-F116)	072 02	External Tanks Air Pressure Transducer (5MTR130), 161742 and Up
052 00	No. 1 Fuel Tank Refuel/Transfer Check Valve (5VAP532)	073 00	Refuel Scavenge Line Pressure Transducer (5MTF140)
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054 00	Refuel/Defuel Shutoff Valve (5VAP533)	073 02	Refuel Scavenge Line Pressure Transducer (5MTF140), 161702 and Up
055 00	No. 4 Fuel Tank Automatic Drain Valve (5VAP568)	074 00	Inflight Refueling Probe Nozzle (5VAB526)
056 00	Defuel Valve (5VAP521)	075 00	Deleted
056 01	Defuel Valve (5VAP521), 161353 thru 161715 Before F18 AFC 18 and F18 AFC 53	076 00	Inflight Refueling Probe Assembly (5MPB547)
056 02	Defuel Valve (5VAP521), 161716 thru 161761 Before F18 AFC 018 and F18 AFC 053	077 00	Inflight Refueling Probe and Door-Drive Mechanism
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057 00	No. 1 Fuel Tank Fuel Level Control Shutoff Valve and High Level Pilot Valve (5VAP541 and 5VAP539)	079 00	Inflight Refueling Directional Control Valve (5L-B007)
058 00	No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) and High Level Pilot Valve (5VAP594)	079 01	Inflight Refueling Hydraulic Check Valve (5VAC646)
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061 00	Wing Refuel/Defuel Shutoff Valve (5VAU553 or 5VAV554) and Strainer (5FAU683 or 5FAV684)	082 00	Inflight Refueling Probe Retract Limit Switch (5S-B010)
062 00	Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574)	083 00	Inflight Refueling Floodlight (5DSB008)
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		089 02	External Fuel Tank Jumper Cable W52630 (61W-Y555)
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		090 00	Deleted

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092 04	External Fuel Tank (Cylindrical) Swaybrace Pad	111 00	No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600)
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093 02	External Fuel Tank Air Pressure Regulator (5L-P102), 161742 and Up	112 00	No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605)
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097 00	Fuselage to Pylon Fuel Coupling Valve (5VAR522)	114 02	No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131), 161716 and Up; Also 161353 thru 161715 After F/A-18 AFC 18 and F/A-18 AFC 53
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065 02		1 - 5	0	1 - 3	0	107 01	
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066 00		081 00		092 02		107 02	
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071 00		12 Blank	0	1 - 7	0	111 00	
1 - 6	0	084 00		8 Blank	0	1	0
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6 Blank	0	086 00		1 - 4	0	1 - 7	0
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6 Blank	0	1 - 4	0	099 00		1 - 12	0
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074 00		089 03		4 Blank	0	14 Blank	0
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LIST OF TECHNICAL PUBLICATIONS DEFICIENCY REPORTS INCORPORATED**ORGANIZATIONAL MAINTENANCE****SYSTEM MAINTENANCE WITH IPB****FUEL SYSTEM****This WP supersedes TPDR WP, dated 1 September 1999.**

1. The TPDRs listed below have been incorporated in this issue.

REPORT CONTROL NUMBER	LOCATION
09309-02-0012	WP 077 00, page 4
09485-03-0029	WP 089 01, pages 1 & 2

WARNINGS APPLICABLE TO HAZARDOUS MATERIALS

Warnings for hazardous materials listed in this manual are designed to warn personnel of hazards associated with such items when they come in contact with them by actual use. Additional information related to hazardous materials is provided in OPNAVINST 5100.23, Navy Occupational Safety and Health (NAVOSH) Program Manual, NAVSUPINST 5100.27, Navy Hazardous Material Control Program, and the DOD 6050.5, Hazardous Materials Information System (HMIS) series publications. For each hazardous material used within the Navy, a material safety data sheet (MSDS) is required to be provided and available for review by users. Consult your local safety and health staff concerning any questions on hazardous chemicals, MSDS's, personal protective equipment requirements, and appropriate handling and emergency procedures and disposal guidance.

Complete warnings for hazardous materials referenced in this manual are identified by use of an icon, nomenclature and specification or part number of the material, and a numeric identifier. The numeric identifiers have been assigned to the hazardous materials in the order of their appearance in the manual. Each hazardous material is assigned only one numeric identifier. Repeated use of a specific hazardous material references the numeric identifier assigned at its initial appearance.

In the text of the manual, the caption WARNING will not be used for hazardous materials. Such warnings will be identified by an icon and numeric identifier. The material nomenclature will also be provided. The user is directed to refer to the corresponding numeric identifier listed below for the complete warning applicable to the hazardous materials.

Biological



Fire



Chemical



Poison



Explosion



Radiation



Eye
Protection



Vapor



Cryogenic



EXPLANATION OF HAZARDOUS SYMBOLS



The abstract symbol bug shows that a material may contain bacteria or viruses that present a danger to your life or health.



The symbol of drops of a liquid onto a hand shows that the material will cause burns or irritation of human skin or tissue.



The rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition, or high pressure.



The symbol of a person wearing goggles shows that the material will injure your eyes.



The symbol of a flame shows that a material can ignite and burn you.



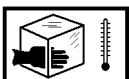
The symbol of a skull and crossbones shows that a material is poisonous or is a danger to life.



The symbol of three circular wedges shows that the material emits radioactive energy and can injure human tissue or organs.
















The symbol of a human figure in a cloud shows that vapors of a material present a danger to your life or health.




















The symbol of a hand in a block of ice shows that the material is extremely cold and can injure human skin or tissue.



















HAZARDOUS MATERIALS WARNINGS

Index	Material	Warning
1	Jet Fuel, JP-4 and JP-5, MIL-T-5624, JP-8, MIL-T-83133	Jet Fuel, JP-4 and JP-5, MIL-T-5624; JP-8, MIL-T-83133, is toxic and flammable/combustible. Do not use near open flames, near welding areas, or on hot surfaces. Do not smoke when using it and do not use when others are smoking. Aircraft fueling/defueling operations shall be performed only after proper bonding/grounding. Contact of skin with liquid can irritate skin. Contact of eyes with liquid can cause severe irritation and blurred vision. Inhalation of vapor may cause irritation, headache, nausea and dizziness. If liquid contacts eyes, flush eyes thoroughly with water. Immediately remove fuel-saturated clothing. If vapors cause dizziness, go to fresh air. If liquid is swallowed, do not try to vomit. Get medical attention. Dispose of liquid soaked rags in approved metal container. Metal containers of fuel must be grounded to maintain electrical continuity. Fuel cells shall be entered only after being certified gas-free by qualified personnel. Ensure good personal hygiene prior to eating, drinking, or smoking. Protection: chemical resistant goggles, rubber gloves, protective clothing and good ventilation. When handling large quantities of liquid (more than one gallon) at an unexhausted workbench, wear approved respirator and goggles or face shield.
	     	
2	Petrolatum, Technical, VV-P-236	Technical Petrolatum, VV-P-236, is an eye irritant and upon exposure may cause skin irritation. May cause stomach/intestinal irritation upon ingestion. Avoid extreme heat and strong oxidizing agents. Protection: neoprene gloves and chemical goggles.
	 	
3	Isopropyl Alcohol, TT-I-735	Isopropyl Alcohol, TT-I-735, is toxic and flammable. Do not use near open flames, near welding areas, or on hot surfaces. Do not smoke when using it and do not use it where others are smoking. Inhalation of vapors can cause drowsiness, dizziness and headache. Contact of liquid with skin may cause dermatitis and irritation. If any liquid contacts skin or eyes, immediately flush affected area thoroughly with water. Remove solvent-saturated clothing. If vapors cause drowsiness, go to fresh air. When handling large quantities (greater than one gallon), work at air-exhausted workbench or covered tank. Store solvent and dispose of liquid-soaked clothes in approved metal safety container. Metal containers of liquid must be grounded to maintain electrical continuity. Protection: chemical resistant goggles, gloves and good ventilation (or respirator).
	    	






















HAZARDOUS MATERIALS WARNINGS (Cont)

Index	Material	Warning
4	Sealing Primer, MIL-S-22473, Grade T	Sealing Primer, MIL-S-22473, Grade T, is a skin and eye irritant. Avoid prolonged contact with skin and eyes. Store below 120°F. Protection: rubber gloves, chemical resistant goggles and protective skin compound.
	 	
5	Sealing Compound, MIL-S-22473, Grade C	Sealing Compound, MIL-S-22473, Grade C, is a skin and eye irritant and flammable. Do not use near open flames, near welding areas, or on hot surfaces. Prolonged or repeated contact with liquid can cause dermatitis and irritation of the skin. Repeated inhalation of vapors can cause liver and kidney damage. If any liquid contacts skin or eyes, immediately flush affected area thoroughly with water. Remove solvent-saturated clothing. If vapors cause irritation, go to fresh air. When handling liquid at air-exhausted workbench, wear approved respirator and gloves, and wear goggles or face shield. Dispose of liquid-soaked rags in approved metal container.
	    	
6	Sealing Compound, MIL-S-8802, Type 2 Class A-1/2	Sealing Compound, MIL-S-8802, Type 2 Class A-1/2, is toxic and flammable. Keep away from heat, sparks and open flame. Use with adequate ventilation to prevent vapor buildup. Prolonged breathing of vapors from organic solvents or materials containing organic solvents is dangerous. Avoid prolonged or repeated skin or eye contact. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures. Protection: rubber gloves, chemical resistant goggles and protective skin compound.
	    	
7	Adhesive, EA9309A/B	Epoxy Resin Adhesive, EA9309A/B, is toxic and flammable. Avoid contact with skin and eyes. Use in a well ventilated area and avoid breathing vapors. Wash hands thoroughly after each use. Close container after usage. Store in a cool, dry and well ventilated area. Avoid contact with strong oxidizing agents. Protection: rubber gloves, chemical resistant goggles and protective skin compound; respirator with organic vapor cartridge required in poorly ventilated area.
	    	

















HAZARDOUS MATERIALS WARNINGS (Cont)

Index	Material	Warning
8	Methyl Ethyl Ketone, TT-M-261	Methyl Ethyl Ketone (MEK), TT-M-261, is toxic and flammable. Do not use near open flames, near welding areas or on hot surfaces. Do not smoke when using it and do not use it where others are smoking. Keep container tightly closed. Avoid contact with skin or eyes. Contact with liquid or vapor can cause skin irritation, dermatitis and drowsiness. If there is any prolonged skin contact, wash contacted areas with soap and water. Remove solvent saturated clothing. If vapors cause drowsiness, go to fresh air. If irritation persists, get medical attention. When handling liquid at air-exhausted workbench, wear approved gloves, goggles and long sleeves. When handling liquid or liquid-soaked cloth in open unexhausted area, wear approved respirator, gloves and goggles. Dispose of liquid soaked rags in approved metal container. Metal containers of solution must be grounded to maintain electrical continuity.
	    	
9	Cleaning Compound PR146 Blue	Cleaning Compound, PR146 Blue, is toxic to skin, eyes and respiratory tract. Skin and eye protection required. Avoid repeated or prolonged contact. Good general ventilation is normally adequate.
	  	
10	Sealing Compound, MIL-S-81733	Sealing Compound, MIL-S-81733, is a flammable and toxic and may contain chromium compounds, suspected carcinogens. Avoid contact with skin and eyes. Keep away from heat, flames and oxidizing materials. Prolonged breathing of vapors from organic solvents, or materials containing organic solvents, is dangerous. Protection: rubber gloves, chemical resistant goggles and protective skin cream; use of a respirator with organic vapor cartridge is advised in poorly ventilated areas. Wash hands thoroughly with soap and water before eating, drinking or smoking. Contains chromates; follow approved toxic waste disposal procedures.
	    	
11	Grease, Aircraft, MIL-G-81322	Grease, Aircraft, MIL-G-81322, is combustible. It is an eye irritant and, upon prolonged exposure, a skin irritant. Keep away from flames, high temperatures and oxidizing agents. Do not apply to hot surfaces; toxic gases may be released. Store in a cool dry place. Wash hands thoroughly prior to eating, drinking or smoking. Protection: neoprene gloves and chemical resistant goggles.
	    	














HAZARDOUS MATERIALS WARNINGS (Cont)

Index	Material	Warning
12	Primer Coating, Epoxy, MIL-P-23377 Type I	Primer Coating, Epoxy, MIL-P-23377, Type I or Type II, is toxic and flammable. Do not use near open flames, Welding areas or on hot surfaces. Do not eat, drink or smoke where primers are being mixed, handled or cleaned up. Prolonged breathing of vapors or spray mist is dangerous and may cause allergic reactions. Avoid prolonged skin contact. Contains chromates; follow approved toxic waste disposal procedures. Store tightly in a cool, dry, well ventilated area. Launder contaminated clothing before reuse. Protection: full facepiece continuous flow supplied air respirator, gloves, chemical resistance goggles, faceshield, protective skin compound, protective clothing required during spray operations.
	    	
13	Sealing Compound, MIL-S-83430, Class A-1/2 or B-4	Sealing Compound, MIL-S-83430, Class A-1/2 or B-4, is flammable and toxic to eyes, skin and respiratory tract. Prolonged overexposure via inhalation may cause liver and/or kidney damage. Protection: chemical splashproof goggles and solvent resistant gloves. Keep compound off skin and eyes. Keep away from open flames or other sources of ignition. Use only in well ventilated areas. Ensure good personal hygiene prior to eating, drinking or smoking.
	    	
14	Cleaning Compound, MMS409	Cleaning Compound, MMS409, is flammable and toxic to eyes, skin and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flame or other sources of ignition.
	    	
15	Adhesive/Sealant, RTV Silicone, MIL-A-46146, Type I	Adhesive, MIL-A-46146, Type I, is combustible at temperatures above 250° and is an irritant to skin and eyes. Keep away from heat, sparks and flame. If contact with eyes occurs, flush immediately with water for 15 minutes and seek medical attention. Individuals who wear contact lenses should thoroughly wash hands prior to handling lenses. Adhesive/sealant may be harmful if swallowed. Do not breath vapors. If skin contact occurs, wipe with dry cloth then wash with soap and water. Protection: rubber gloves, chemical resistant goggles and local ventilation.
	     	

HAZARDOUS MATERIALS WARNINGS (Cont)

Index	Material	Warning
16	Dry Lubricant, MIL-L-60326, Type II	Dry Lubricant, MIL-L-60326, can irritate or damage skin, eyes and respiratory tract; avoid contact. Avoid breathing dust. When handling at air-exhausted workbench, wear approved gloves. When handling at unexhausted workbench, wear approved organic vapor-type respirator and gloves.
	  	
17	Adhesive, EC-776	Adhesive, EC-776, is toxic and flammable. Avoid contact with skin and eyes. Use in a well ventilated area and avoid breathing vapors. Wash hands thoroughly after each use. Close container after usage. Store in a cool, dry and well ventilated area. Avoid contact with strong oxidizing agents. Protection: rubber gloves, chemical resistant goggles and protective skin compound; respirator with organic vapor cartridge required in poorly ventilated areas.
	    	
18	Sealing Compound, 93-00606	Sealing Compound, 93-0060, is a skin, eye and respiratory tract irritant. Avoid skin/eye contact and breathing vapors or dust. Protection: safety goggles or faceshield, cloth or rubber gloves and adequate ventilation.
	  	
19	Antiseize Compound, MIL-T-5544	Antiseize Compound, MIL-T-5544, is flammable. Do not use near open flames, near welding areas or on hot surfaces. When decomposed by heat, toxic gases are released. Do not smoke while using it and do not use it where others are smoking. Contact with the liquid can cause severe skin and eye irritation. Prolonged inhalation of vapors can cause drowsiness, headache and loss of consciousness. After any prolonged skin contact, wash contacted area with soap and water. If liquid contacts eyes, flush eyes thoroughly with water. If vapors cause drowsiness, go to fresh air. Get medical attention. If repeated or prolonged application of aerosol with spray can or brush is likely, wear approved respirator, gloves and goggles. Dispose of liquid-soaked rags in approved metal safety container. Metal container must be grounded to maintain electrical continuity.
	    	


HAZARDOUS MATERIALS WARNINGS (Cont)

Index	Material	Warning
20	Sulfuric Acid, O-S-809, Type 1, Class 1	Sulfuric Acid, O-S-809, Type 1, Class 1, is highly reactive. Do not mix with organics, such as chlorates and carbides. Contact of skin or eyes with liquid can cause severe burns, pitting and dermatitis. Inhalation of the mist is highly irritating and repeated exposure can damage lungs. If liquid does contact eyes or skin, flush affected area with water immediately. Get medical help immediately. Change any acid-soaked clothing. When handling in air-exhausted tank, wear approved gloves, long sleeves and apron and wear goggles or face shield. If large quantities of concentrated acid or heated solutions are handled in an unexhausted area, wear approved respirator, protective clothing, gloves and goggles.
	  	
21	Sodium Dichromate, O-S-595	Sodium Dichromate, O-S-595, is highly reactive, corrosive and a known carcinogen. Do not mix it with oxidizable materials such as paper, wood and sawdust. Avoid breathing of dust and mist. Avoid contact with eyes, skin and clothing. Prolonged contact of solid powder can result in perforation of nose septum. If any solution or powder contacts skin or eyes, flush affected area thoroughly with water. Remove contaminated clothing. If skin ulcers or nasal irritation occurs, get medical attention. When mixing or applying solution at air-exhausted workbench, wear approved gloves, apron and long sleeves. Do not eat, smoke or carry smoking materials in areas where solid is handled.
	   	
22	Adhesive, EA 9321A/B	Adhesive, EA 9321A/B, is toxic and flammable. Avoid contact with skin and eyes. Use in well ventilated area and avoid breathing vapors. Wash hands thoroughly after each use. Close container after usage. Store in a cool, dry and well ventilated area. Avoid contact with strong oxidizing agents. Protection: rubber gloves, chemical resistant goggles and protective skin compound; respirator with organic vapor cartridge required in poorly ventilated areas.
	    	
23	Nitrogen, BB-N-411, Type I (Gaseous)	Nitrogen, (BB-N-411, Type I (Gaseous)) acts as a natural asphyxiant. Use in well ventilated spaces.
		

A1-F18AC-460-320

HMWS-9/(HMWS-10 blank)

HAZARDOUS MATERIALS WARNINGS (Cont)

Index	Material	Warning
24	Leak Detection Compound, MIL-L-25567	Leak Detection Compound, MIL-L-25567, is a skin and eye irritant. Avoid contact with strong oxidizing agents and reducers, particularly alkaline materials. Protection: rubber gloves and chemical goggles.
		

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
GROUND REFUEL/DEFUEL RECEPTACLE (5VAD626)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precaution and Generator Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Structural Repair Manual	A1-F18AC-SRM-220

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
---------------------	---

Packing	MS29513-153
Petrolatum, Technical	VV-P-236 (CAGE 81348)
■ Primer	MMS-425

1. REMOVAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. Defuel aircraft (A1-F18AC-PCM-000).

c. Make sure electrical power is not applied (A1-F18AC-LMM-000).

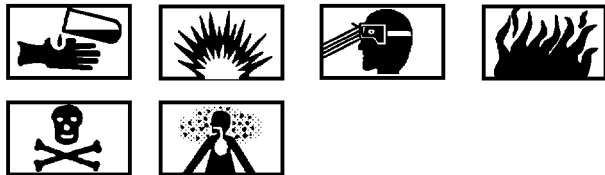
d. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

e. Open door 8 (A1-F18AC-LMM-010).

f. Disconnect pin at receptacle (1, figure 1) and remove cap (4).

WARNING

To prevent personal injury, do not stand directly under door 8 when removing or unseating receptacle.



Jet Fuel

1

g. Position an approved safety container under door 8, unseat receptacle (1) and drain residual fuel.

h. Remove screws (5), receptacle (1) and packing (2).

i. To prevent contamination, cover receptacle (1) opening.

2. INSTALLATION.



Petrolatum, Technical

2

a. Lubricate new packing (2, figure 1) with petrolatum.

b. If removing and installing MS24484-4 receptacle, prepare mating surfaces of receptacle (1) and manifold (3) for electrical bond (A1-F18AC-LMM-000).

c. If removing MS24484-4 receptacle and installing MS24484-5 adapter, paint manifold (3) per sub-steps below:

(1) Cover holes in manifold (3) to be sure of applicable electrical bonding through fasteners.

(2) Coat exposed surface of manifold (3) with MMS-425 primer (A1-F18AC-SRM-500).

(3) Prepare mating surface of receptacle (1) for electrical bond (A1-F18AC-LMM-000).

d. Install packing (2), adapter (1), and screws (5) with TOP on receptacle facing up.

e. On 161353 THRU 162414, when installing new cap (4, detail B), make sure door 8 is reworked per A1-F18AC-SRM-220.



To prevent damage to cap retainer cable, position cable tab on cap in either position shown in detail A or B.

f. Connect pin and install cap (4).

g. Remove no power tag from external power receptacle.

h. Refuel aircraft (A1-F18AC-PCM-000). Make sure receptacle (1) does not leak.

i. Close door 8 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

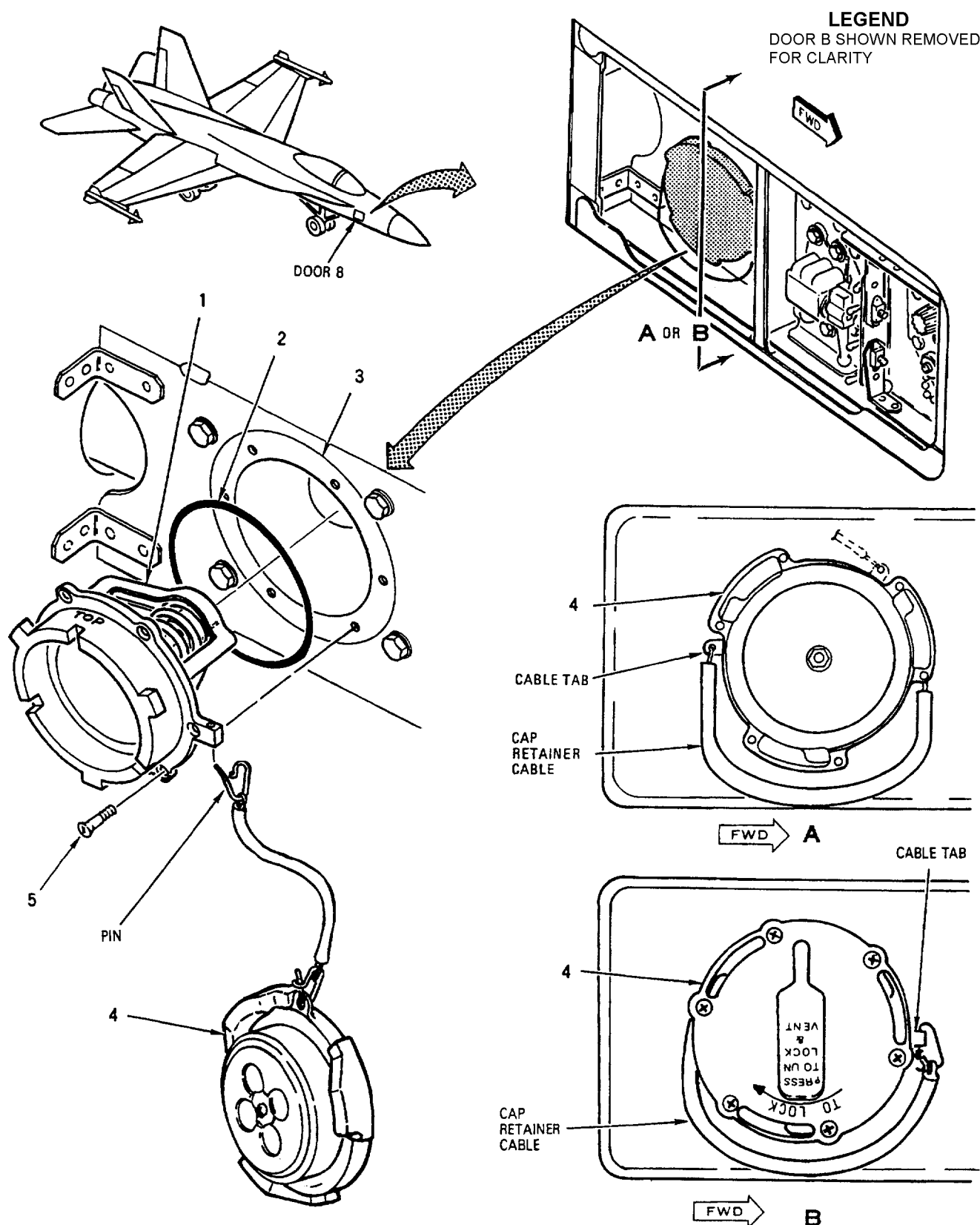


Figure 1. Ground Refuel/Defuel Receptacle (5VAD626) (Sheet 1)

04500101

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		GROUND REFUEL/DEFUEL									
		RECEPTACLE (5VAD626)									
1	MS24484-5	.	ADAPTER, PRESSURE FUEL						1		PAOZZ
			(GROUND REFUEL/DEFUEL RECEPTACLE) (5VAD626) (REPLACES MS24484-4)								
	MS24484-4	.	SEE ABOVE (USE UNTIL						1	A	PAOZZ
			EXHAUSTED)								
2	MS29513-153	.	PACKING						1		PAOZZ
3	74A580730-1007	.	MANIFOLD, REFUEL GROUND.						1		XBOZZ
			(76301) (SUPERSEDES 741580606-1005, 74A580606-1007, 74A580606-1009, 74A580730- 1001 & 74A580730-1003)								
	NAS674V11	.	BOLT (AP)						4		PAOZZ
	AN960JD416L	.	WASHER (AP)						4		PAOZZ
4	74B580076-2001	.	CAP (76301)						1		PAOZZ
	MS29526-2	.	CAP						1	*	PAOZZ
5	HT4025L3-4	.	SCREW, CLOSE TOLERANCE (73197).						6		PAOZZ
			(MCDONNELL SPEC ST3M454-3L4)								

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 162404	F/A-18A/B

Figure 1. Ground Refuel/Defuel Receptacle (5VAD626) (Sheet 2)

**ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
REMOVAL, INSTALLATION AND REPAIR
FUEL CHECK PANEL (5A-B019)
REFUEL/DEFUEL SYSTEM**

Reference Material

Line Maintenance Access Doors A1-F18AC-LMM-010
Line Maintenance Procedures A1-F18AC-LMM-000

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Support Equipment Required	2
Repair	2
Materials Required	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP-MDA- F18-00072C1)	15 Oct 86	-

1. REMOVAL AND INSTALLATION.

Support Equipment Required

None

Materials Required

None

2. REMOVAL.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- b. Open door 8 (A1-F18AC-LMM-010).
- c. Position master precheck handle to UP PRE-CHECK.
- d. Remove bolts (1, figure 1) and attaching parts.
- e. Remove panel (2) and disconnect connector (4).

3. INSTALLATION.

NOTE

Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- b. Prepare structure and panel (2, figure 1) for electrical bond (A1-F18AC-LMM-000).
- c. Connect connector (4) to panel (2).
- d. Install panel (2), bolts (1) and attaching parts.
- e. Position master precheck handle to DOWN NORMAL.
- f. Press lights on panel (2) and make sure lights come on.
- g. Release lights.

- h. Close door 8 (A1-F18AC-LMM-010).

4. REPAIR.

Support Equipment Required

None

Materials Required

None

5. LAMP REMOVAL.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).
 - b. Remove lens and lamp (5, figure 2 or figure 3, detail A).
- ## 6. INSPECTION.
- a. Visually inspect lamp (5, figure 2 or figure 3) and lamp holder for corrosion, damage and wear.

- b. Inspect threaded parts for stripped threads or cross threads.

- c. Inspect wiring for signs of burns (overheating or short circuiting), cracked or peeled insulation and chafing.

- d. Inspect all electrical connections for broken or defective solder connections.

7. LAMP INSTALLATION.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- b. Install new lamp (5, figure 2 or figure 3, detail A).
- c. Install lens.

8. ILLUSTRATED PARTS BREAKDOWN.

9. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

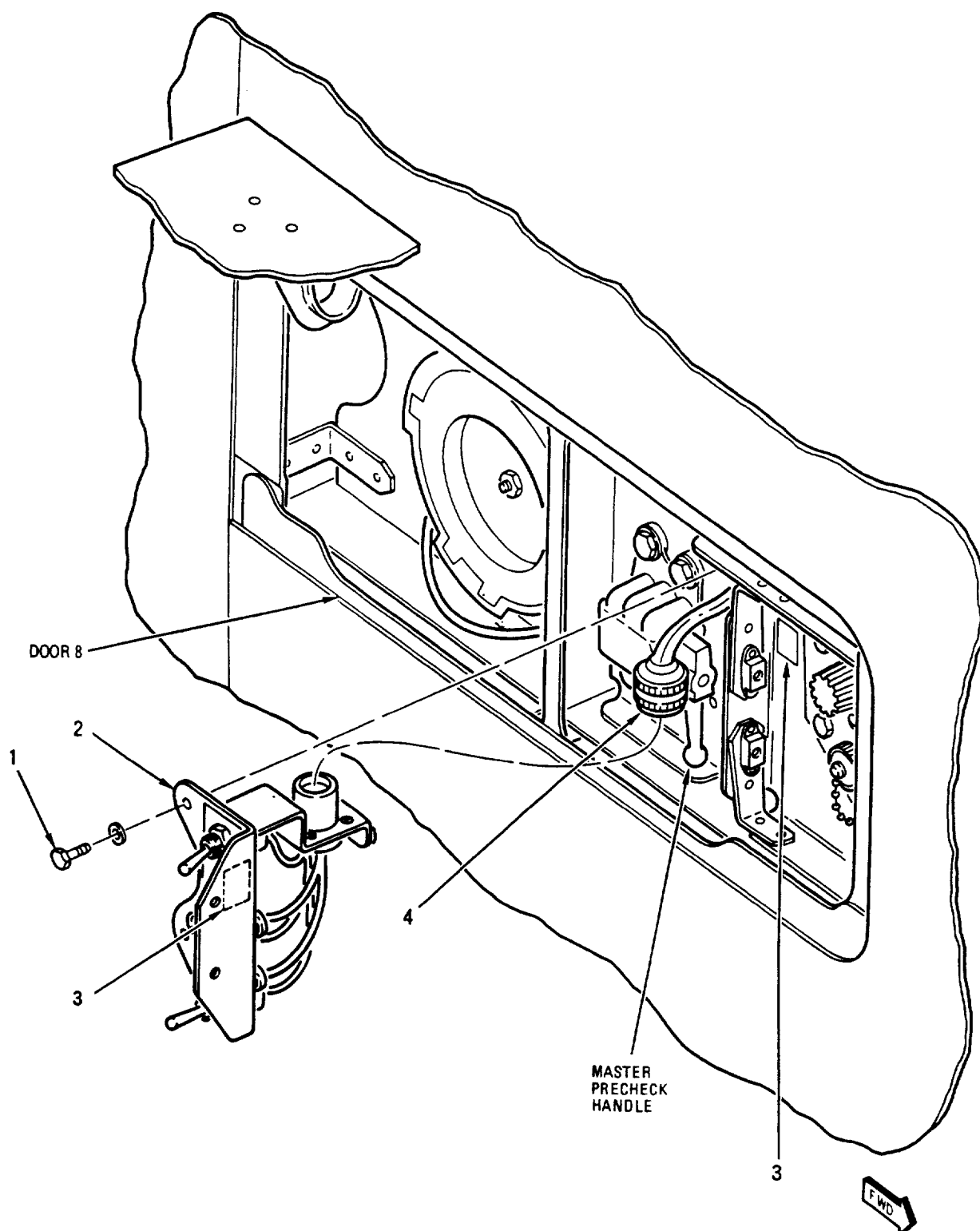
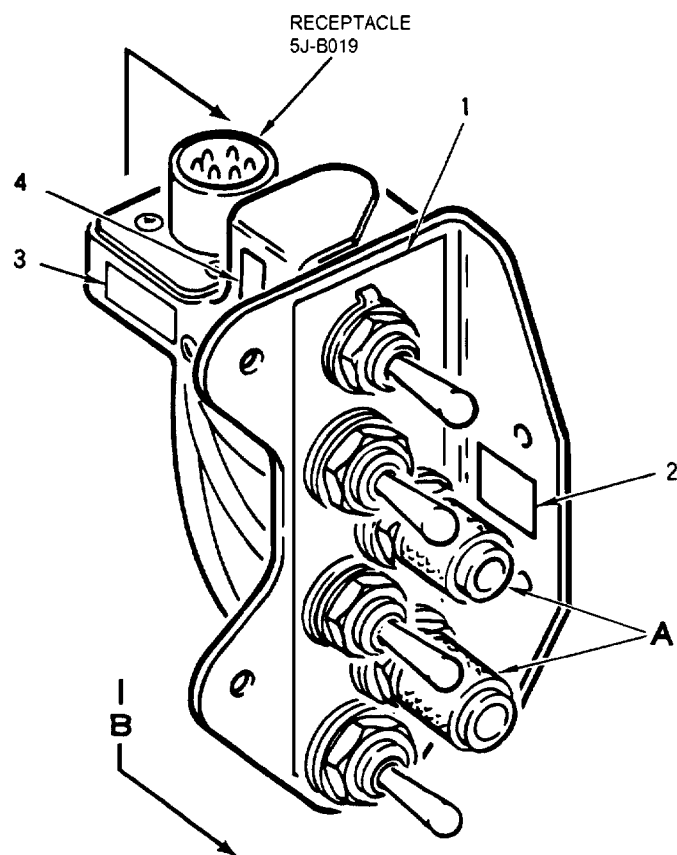


Figure 1. Fuel Check Panel (5A-B019) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUEL CHECK PANEL (5A-B019)									
1	NAS673V4	.	BOLT						4		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 1)						4		PAOZZ
2	74A870609-1017	.	PANEL, FAULT - FUNCTION (FUEL CHECK						1	A	PAOOG
			PANEL) (76301) (5A-B019)								
	74G870609-1003	.	SEE ABOVE						1	D	PAOOG
	74A870609-1021	.	PANEL, FAULT - FUNCTION (FUEL CHECK						1	B	PAOOG
			PANEL) (76301) (5A-B019)								
	74A870609-1023	.	PANEL, FAULT - FUNCTION (FUEL CHECK						1	C	PAOOG
			PANEL) (76301) (5A-B019)								
3	74A890051-2005	.	MARKER, IDENTIFICATION (76301)						1		MDOZZ
4	MS27467T11B35SA	.	CONNECTOR, PLUG (5P-B019)						1		PAOZZ

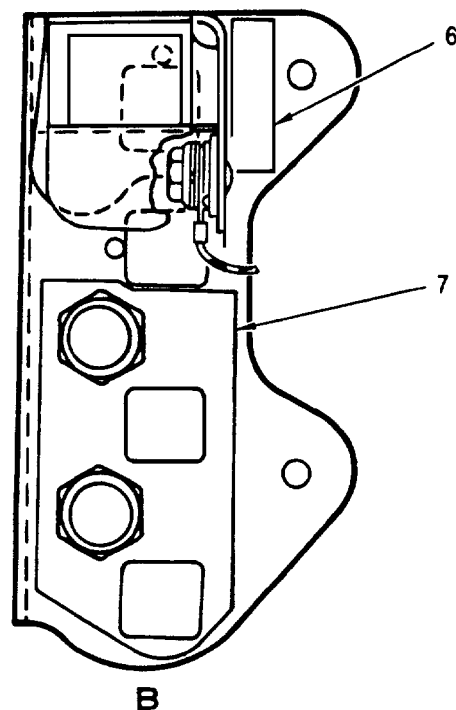
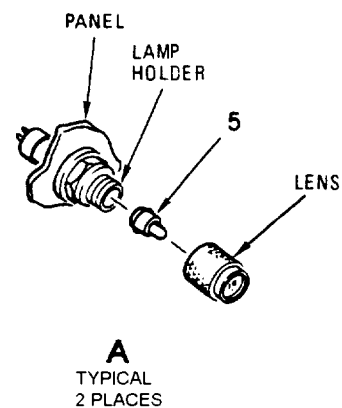
CODE	USABLE ON	MODEL
A	161353 THRU 161519 BEFORE F18 AFC 39	F/A-18A/B
B	161520 THRU 161761 BEFORE F18 AFC 39	F/A-18A/B
C	161924 & UP; ALSO 161520 THRU 161761 AFTER F18 AFC 39	F/A-18A/B
D	161353 THRU 161519 AFTER F18 AFC 39	

Figure 1. Fuel Check Panel (5A-B019) (Sheet 2)



LEGEND

TO LOCATE WIRE TERMINAL
REPAIR INFORMATION IN
A1-F18AC-WRM-000, USE
WRA REFERENCE DESIGNATOR
AND TERMINAL NUMBER.



04600201

Figure 2. Fuel Check Panel Repair (5A-B019) 161353 THRU 161761 BEFORE F18 AFC 39
(Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUEL CHECK PANEL REPAIR									
		(5A-B019) - 161353 THRU									
		161761 BEFORE F18 AFC 39									
1	74A890051-2015	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
2	74A890051-2005	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
3	74A890051-2013	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
4	74A890051-2021	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
5	MS25237-327	.						LAMP	1		PAOZZ
6	74A890051-2019	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
7	74A890051-2017	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ

**Figure 2. Fuel Check Panel Repair (5A-B019) 161353 THRU 161761 BEFORE F18 AFC 39
(Sheet 2)**

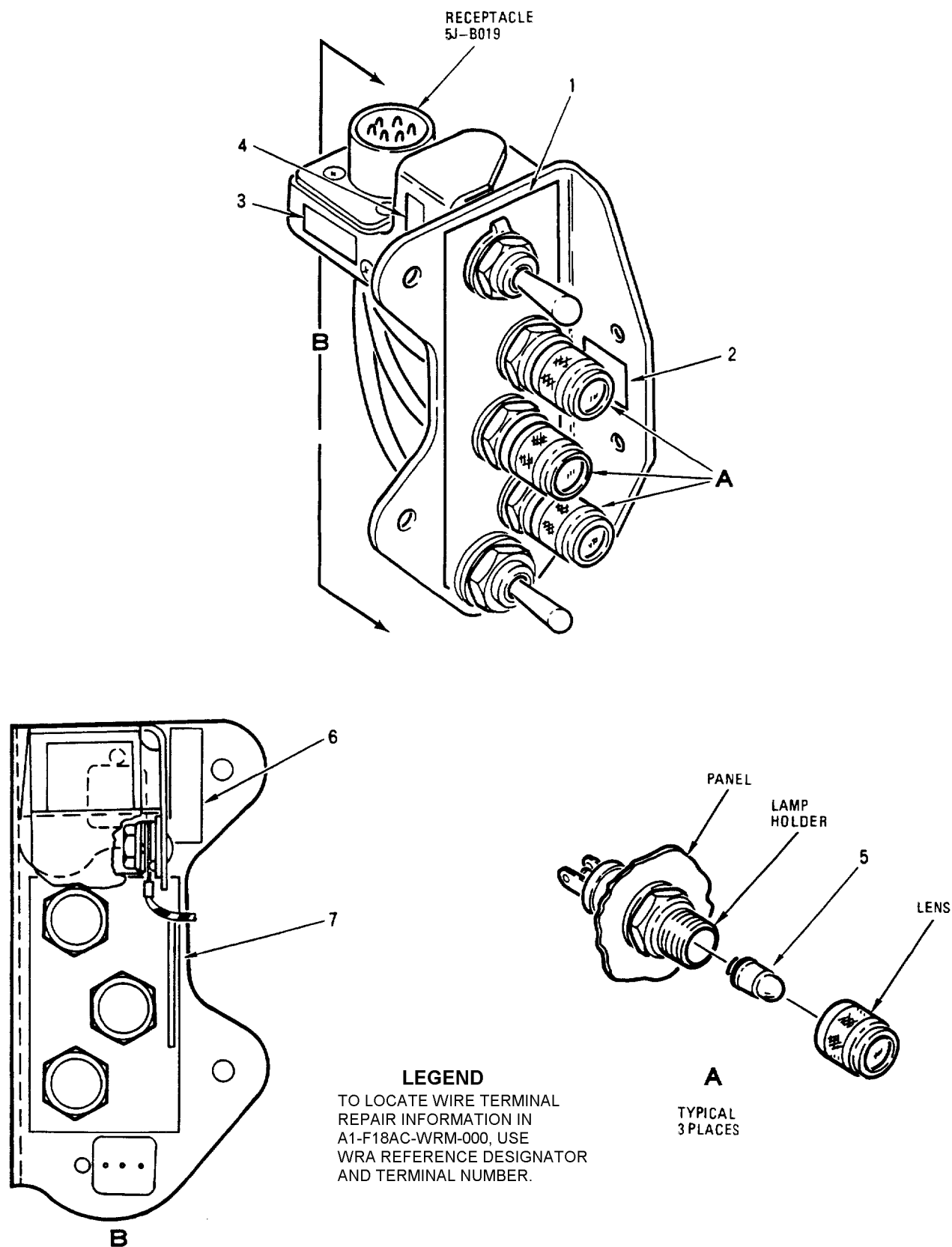


Figure 3. Fuel Check Panel Repair (5A-B019) 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 1)

04600301

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUEL CHECK PANEL REPAIR									
		(5A-B019) - 161924 AND UP; ALSO									
		161353 THRU 161761 AFTER									
		F18 AFC 39									
1	74A890051-2027	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
2	74A890051-2005	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
3	74A890051-2013	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
4	74A890051-2021	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
5	MS25237-327	.						LAMP	1		PAOZZ
6	74A890051-2019	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
7	74A890051-2025	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ

Figure 3. Fuel Check Panel Repair (5A-B019) 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
MASTER PRECHECK VALVE (5VAD624)
REFUEL/DEFUEL SYSTEM

Reference Material

Gun System	A1-F18AC-750-300
20MM Gun	WP003 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a. Defuel aircraft (A1-F18AC-PCM-000).

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

c. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

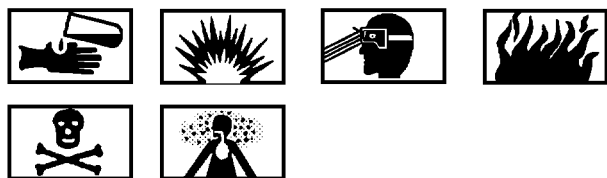
d. Open door 3 and door 8 (A1-F18AC-LMM-010).

e. Remove 20mm gun (A1-F18AC-750-300, WP003 00).

f. Remove internal door NBA (A1-F18AC-LMM-010).

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing (2)	MS29513-110
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Wire, Safety, Nonelectrical	MS20995NC32 (CAGE 96906)



Jet Fuel

1

g. Position an approved safety container under connectors (4) and tubes (7 and 8) to catch residual fuel (figure 1, detail A).

h. Disconnect tubes (7 and 8) from connectors (4).

i. Remove bolts (6), connectors (4) and packings (3 and 5).

j. Remove master precheck valve (1) by removing bolts (9) and attaching parts.

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Install master precheck valve (1, figure 1, detail A) using bolts (9) and attaching parts.



Petrolatum, Technical

2

c. Lubricate all new packings with petrolatum.

d. Install packings (5) on bolts (6) and install in connectors (4), then install packings (3) and install on valve (1). Safety bolts (6) together with lock-wire. (QA)

e. Connect tubes (7 and 8).

f. Remove no power tag from external power receptacle.

g. Refuel aircraft (A1-F18AC-PCM-000). Make sure valve (1) connections do not leak.

h. Install internal door NBA (A1-F18AC-LMM-010).

i. Install 20mm gun (A1-F18AC-750-300, WP003 00).

j. Close door 8 and door 3 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

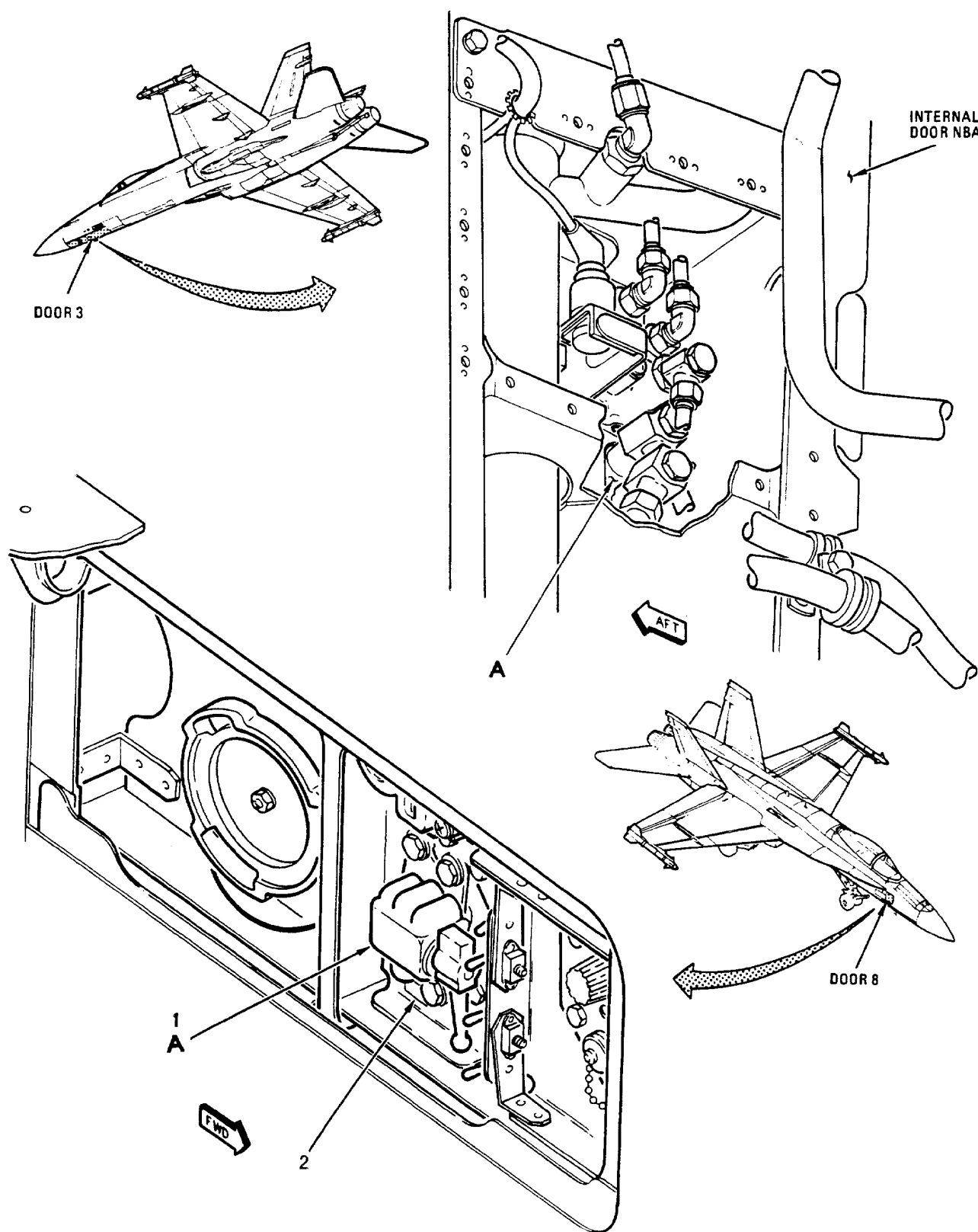


Figure 1. Master Precheck Valve (5VAD624) (Sheet 1)

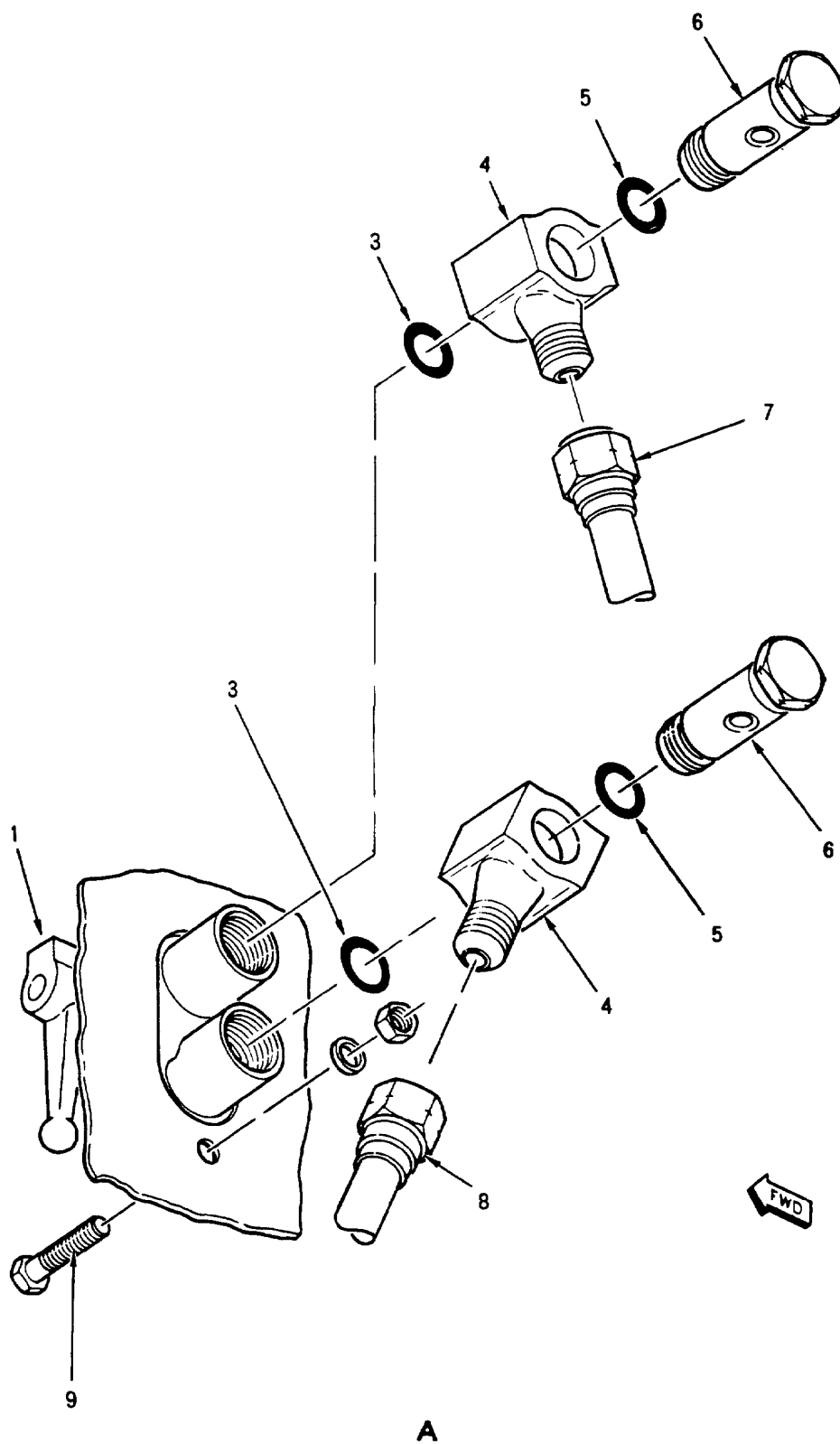


Figure 1. Master Precheck Valve (5VAD624) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		MASTER PRECHECK VALVE (5VAD624)									
1	72D66	.	VALVE, BALL - REFUEL PRECHECK						1		PAOZZ
			AND TANK PRESS SENSING (MASTER PRECHECK VALVE) (91511) (MCDONNELL SPEC 74-580060-101) (5VAD624)								
2	74A890108-2003	.	PLATE IDENTIFICATION (76301)						1		MDOZZ
3	MS29512-06	.	PACKING (AT CONNECTOR)						2		PAOZZ
4	7M131-6V	.	CONNECTOR (76301)						1		PAOZZ
	7M131-6D	.	CONNECTOR (76301)						1	*	PAOZZ
5	MS29513-110	.	PACKING (UNDER BOLT HEAD)						1		PAOZZ
6	7M130-6D	.	BOLT (76301)						1		PAOZZ
7	74A580683-1001	.	TUBE ASSEMBLY, METAL -.						1		MGOZZ
			PRE-CHECK, Y196.039 (76301)								
8	74A580684-1005	.	TUBE ASSEMBLY, METAL -.						1		MGOZZ
			PRE-CHECK Y199.046 (76301) (SUPERSEDES 74A580684-1001, 74A580684-1701 AND 74A586684-1703)								
9	NAS674V4	.	BOLT						3		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 9)						3		PAOZZ
	NAS1291C4M	.	NUT (USE WITH INDEX 9)						3		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Master Precheck Valve (5VAD624) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INDIVIDUAL TANK PRECHECK VALVE (5VAF627)
REFUEL/DEFUEL SYSTEM

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

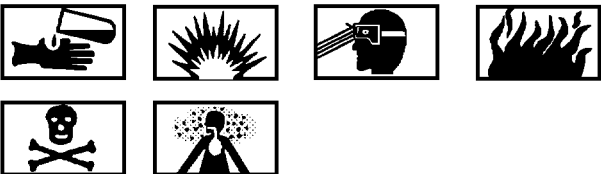
c. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS28778-4
Packing (6)	MS29512-04
Packing	MS29512-06
Petrolatum, Technical	VV-P-236 (CAGE 81348)

d. Remove door 108 (A1-F18AC-LMM-010).

e. To get access to tubes, position all individual tank precheck valve (8, figure 1) handles down.



Jet Fuel

1. REMOVAL.

a. Defuel wing (A1-F18AC-PCM-000).

f. On 161353 THRU 161965 do substeps below:

(1) Position an approved safety container under tubes (1, 6, 15, 17, 18, 19, 20, and 21) to catch residual fuel.

(2) Disconnect tubes (1, 6, 15, 17, 18, 19, 20, and 21).

g. On 161966 AND UP do substeps below:

(1) Position an approved safety container under tubes (6, 15, 17, 18, 24, and 25) to catch residual fuel.

(2) Disconnect tubes (6, 15, 17, 18, 24, and 25).

h. Disconnect elbow (10) from nipple (11).

i. Remove bolts (16), washers and individual tank precheck valve (8).

j. On 161353 THRU 161965, remove tees (2), nipples (7 and 11), nut (12), and retainer (13).

k. On 161966 AND UP, remove nipples (23), nipples (7 and 11), nut (12), and retainer (13).

l. Remove all used packings.

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. Prepare nipples (7 and 11, figure 1) for electrical bond (A1-F18AC-LMM-000).

d. Install nut (12), retainer (13) and packing (14) on nipple (11). Install nipple (11), nut (12), on valve (8) and tighten nut (12).

e. Install packings (5) on nipples (7) and install nipples (7) on valve (8).

f. On 161353 THRU 161965, install nuts (3), retainers (4), and packings (5) on tees (2) and install tees (2) on valve (8) handtight.

g. On 161966 AND UP, install packings (22) on nipples (23) and install nipples (23) on valve (8).

h. Prepare mating surfaces of bolts (16), washers, valve (8) and structure for electrical bond (A1-F18AC-LMM-000).

i. Install valve (8) with bolts (16) and washers.

j. On 161353 THRU 161965, install tubes (1, 19, 20, and 21) on tees (2) and tighten nuts (3).

k. On 161966 AND UP, connect tubes (24 and 25) on nipples (23).

l. Install elbow (10) on nipple (11).

m. Connect tubes (6, 15, 17, and 18).

n. Position individual precheck handles up.

o. Remove no power tag from external power receptacle.

p. Apply external electrical power (A1-F18AC-LMM-000).

q. Refuel aircraft (A1-F18AC-PCM-000). With aircraft in master precheck, do step r.

r. Make sure all individual tank precheck handles are positioned up, then rotate each down and back up individually and check tank pressure/fuel flow indicator in door 8 (A1-F18AC-LMM-010) for rotation. Rotation on indicator should start/stop approximately 45 seconds after precheck handle is rotated down/up.

s. Inspect for fuel leaks at all valve connections.

t. Seal periphery of mating surfaces of valve (8) and structure (A1-F18AC-SRM-500).

u. Remove external electrical power (A1-F18AC-LMM-000).

v. Install door 108 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

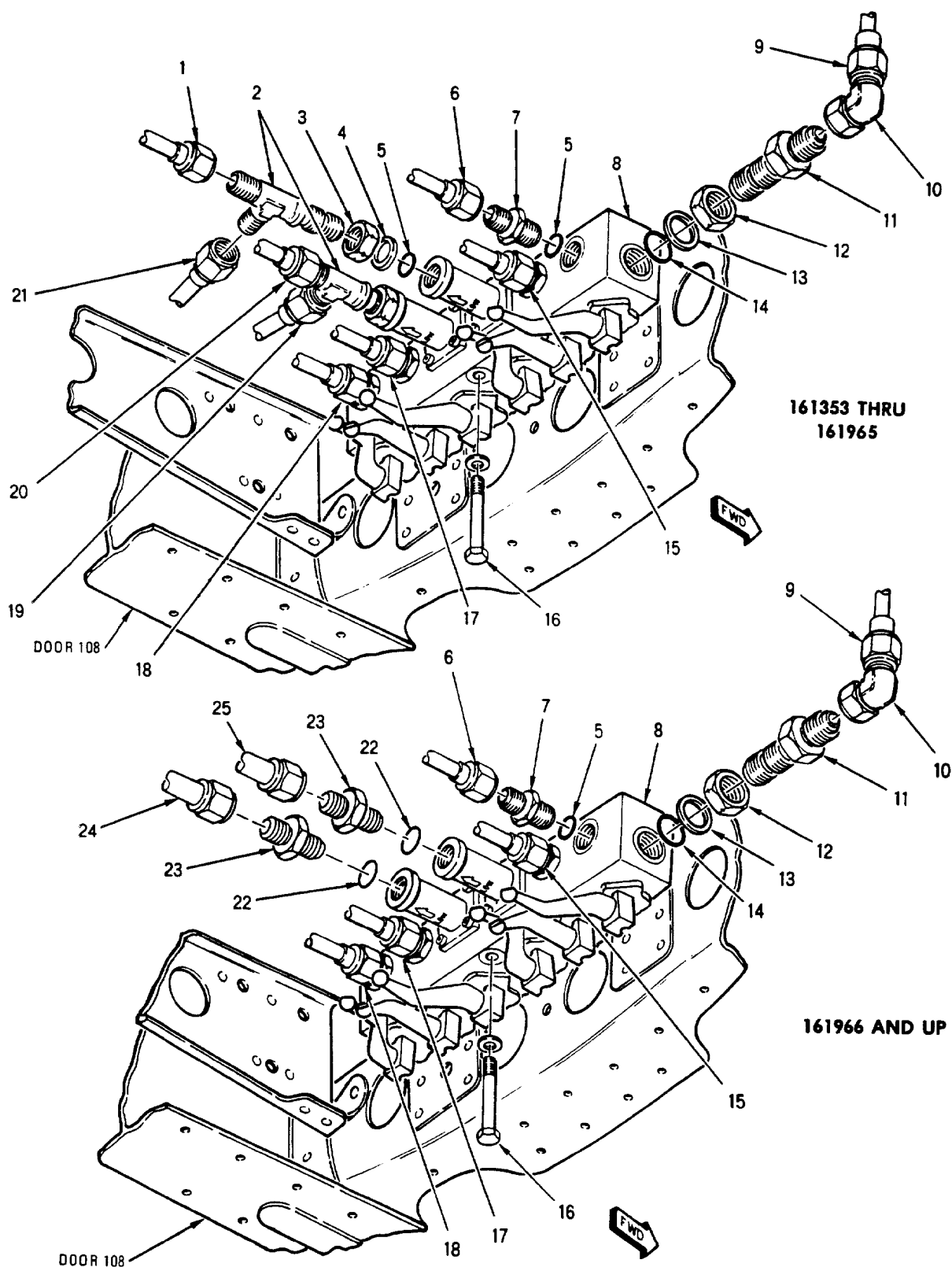


Figure 1. Individual Tank Precheck Valve (5VAF627) (Sheet 1)

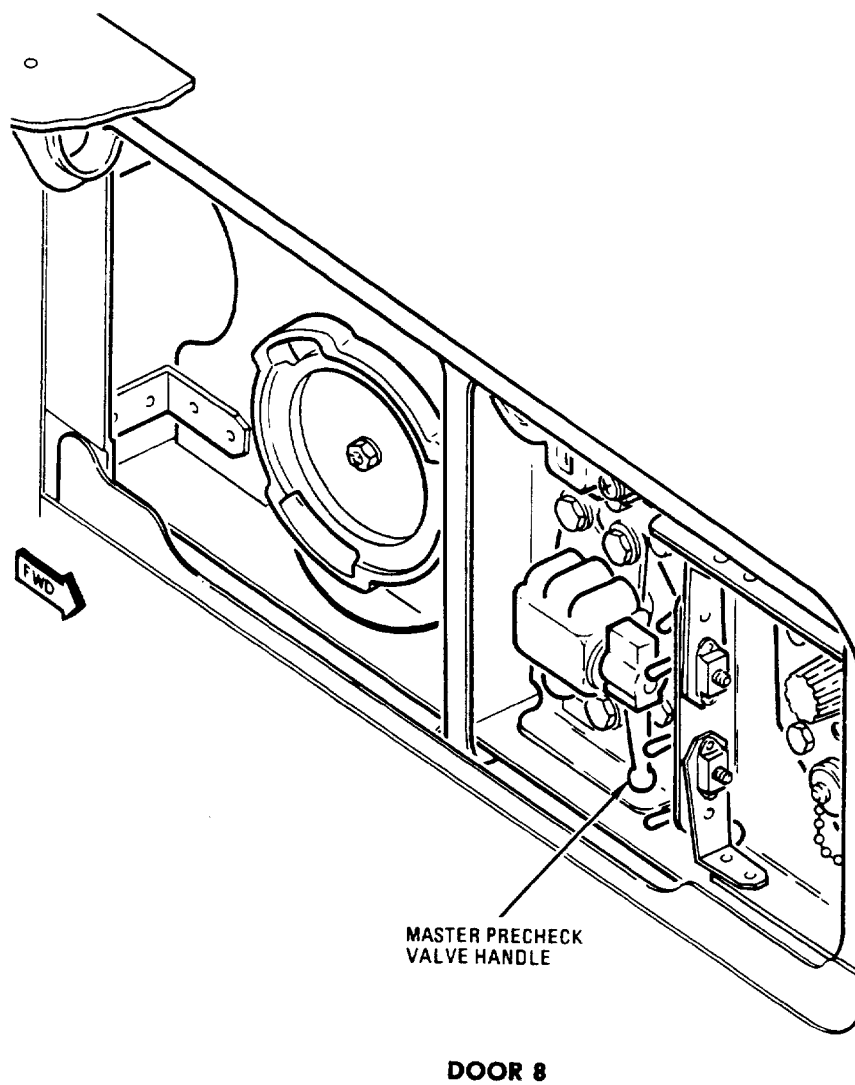


Figure 1. Individual Tank Precheck Valve (5VAF627) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INDIVIDUAL TANK PRECHECK VALVE									
		(5VAF627)									
1	74A580625-1005	.	TUBE ASSEMBLY, METAL - FUEL						1	A	MGOZZ
			PRE-CHECK R WG, Y373.987								
			(76301)								
2	7M637AX-D4	.	TEE, TUBE (76301)						2	A	PAOZZ
3	AN6289D4	.	NUT						2	A	PAOZZ
4	MS28773-04	.	RETAINER						2	A	PAOZZ
5	MS29512-04	.	PACKING						6	A	PAOZZ
6	74A580623-1001	.	TUBE ASSEMBLY, METAL - FUEL						1		MGOZZ
			PRE-CHECK TK1, Y361.369								
			(76301)								
7	7M637BD-4D	.	NIPPLE, TUBE (76301)						4		PAOZZ
8	77D6A	.	VALVE, POPPET - PRECHECK, FUEL						1		PAOZZ
			LEVEL CONTROL (INDIVIDUAL								
			TANK PRECHECK VALVE)								
			(91511) (MCDONNELL SPEC								
			74-580053-101) (5VAF627)								
9	74A580688-1001	.	TUBE ASSY, METAL - PRESS, FUEL						1		MGOZZ
			PRECHECK Y357.116 (76301)								
10	7M148V6	.	ELBOW (76301)						1		PAOZZ
	7M148DA6	.	ELBOW (76301)						1	*	PAOZZ
11	7M637BT-6D	.	NIPPLE, TUBE (76301)						1		PAOZZ
12	AN6289D6	.	NUT						1		PAOZZ
13	MS28773-06	.	RETAINER						1		PAOZZ
14	MS29512-06	.	PACKING						1		PAOZZ
15	74A580626-1003	.	TUBE ASSEMBLY, METAL - FUEL						1		MGOZZ
			PRE-CHECK TK2, Y372.630								
			(76301)								
16	NAS674V25	.	BOLT						3		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 16)						3		PAOZZ
17	74A580627-1003	.	TUBE ASSEMBLY, METAL - FUEL						1	A	MGOZZ
			PRE-CHECK TK3, Y371.148								
			(76301)								
18	74A580628-1003	.	TUBE ASSEMBLY, METAL - FUEL						1	A	MGOZZ
			PRE-CHECK TK4, Y370.942								
			(76301)								
19	74A580634-1001	.	TUBE ASSEMBLY, METAL - FUEL						1	A	MGOZZ
			PRE-CHECK L WG-L/O, Y362.15								
			(76301)								
20	74A580624-1003	.	TUBE ASSEMBLY, METAL - FUEL						1	A	MGOZZ
			PRE-CHECK L WG, Y374.263								
			(76301)								
21	74A580635-1001	.	TUBE ASSEMBLY, METAL - FUEL						1	A	MGOZZ
			PRE-CHECK, R WG-L/O, Y362.865								
			(76301)								
22	MS28778-4	.	PACKING						2	B	PAOZZ
23	7M637BD-4D	.	NIPPLE						2	B	PAOZZ
24	74A580714-1001	.	TUBE ASSEMBLY, METAL (76301)						1	B	MGOZZ
25	74A580715-1001	.	TUBE ASSEMBLY, METAL (76301)						1	B	MGOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Individual Tank Precheck Valve (5VAF627) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161353 thru 161965	F/A-18A/B
B	161966 AND UP	F/A-18A/B

Figure 1. Individual Tank Precheck Valve (5VAF627) (Sheet 4)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
TANK PRESSURE/FUEL FLOW INDICATOR (5DSD625)
REFUEL/DEFUEL SYSTEM

Reference Material

Gun System	A1-F18AC-750-300
20MM Gun	WP003 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Tank Pressure/Fuel Flow Indicator (5DSD625), Figure 1	3

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (3)	MS29512-04
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Make sure electrical power is not applied
(A1-F18AC-LMM-000).

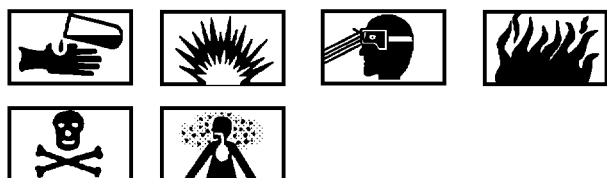
b. Tag aircraft external power receptacle with an
applicable warning to indicate external power is not to
be applied to the aircraft.

c. Defuel aircraft (A1-F18AC-PCM-000).

d. Open door 8 (A1-F18AC-LMM-010).

e. Remove 20mm gun (A1-F18AC-750-300, WP003 00).

f. Remove internal door NBA (A1-F18AC-LMM- 010).



Jet Fuel

1

g. Position approved safety container under tubes (5, 6, and 7, figure 1) to catch residual fuel.

h. Disconnect tubes (5, 6, and 7).

i. Remove bolts (8), washers, and indicator (1).

j. Remove elbows (4), nipples (3), and packings (2).

2. INSTALLATION.



Petrolatum, Technical

2

a. Lubricate packings with petrolatum.

b. Install packings (2), nipples (3), and elbows (4) on indicator (1).

c. Make sure electrical power is not applied (A1-F18AC-LMM-000).

d. Install indicator (1), bolts (8), and washers.

e. Connect tubes (5, 6, and 7).

f. Remove no power tag from external power receptacle.

g. Refuel aircraft (A1-F18AC-PCM-000) making sure indicator (1) operates and inspect for leaks.

h. Install internal door NBA and close door 8 (A1-F18AC-LMM-010).

i. Install 20mm gun (A1-F18AC-750-300, WP003 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

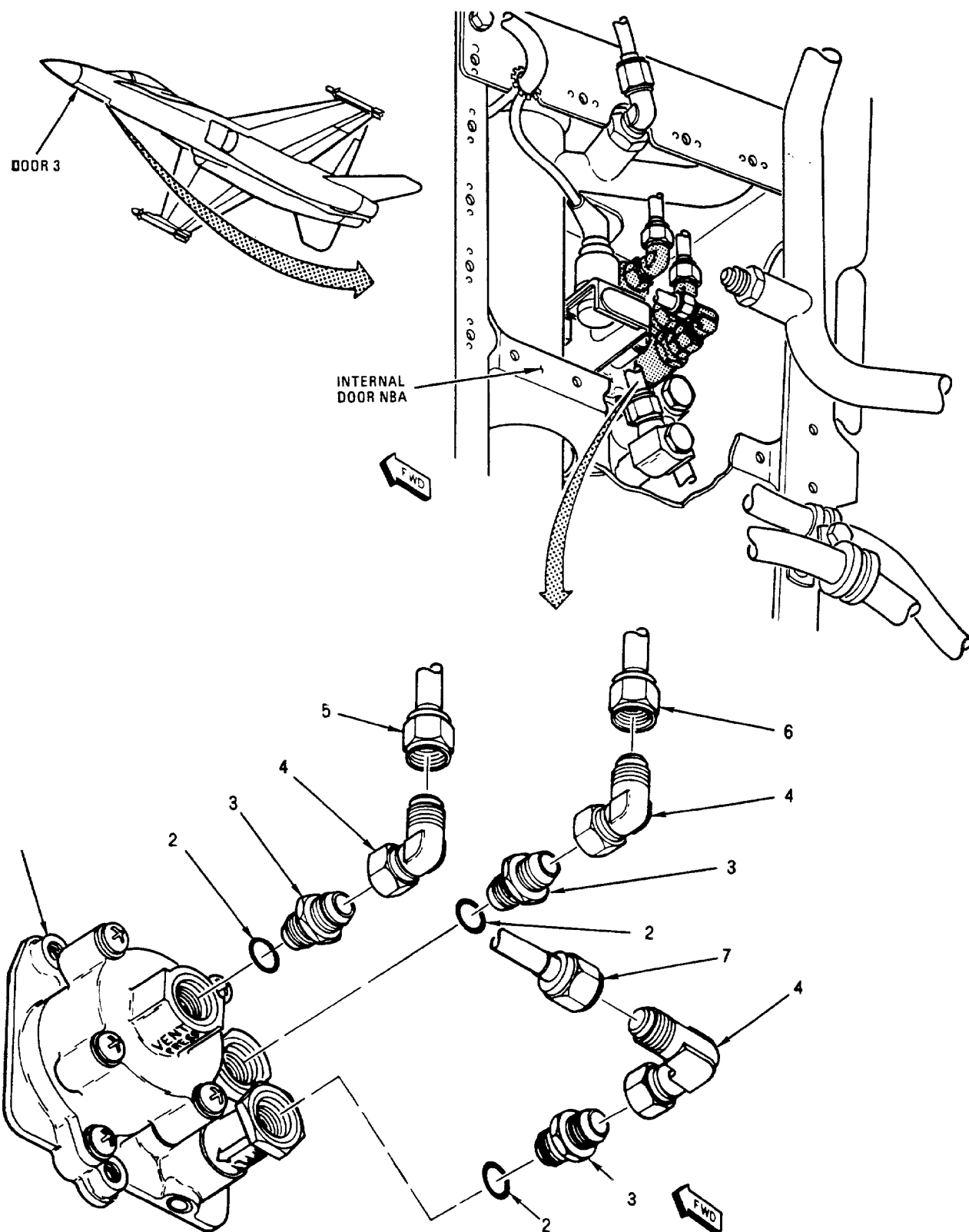


Figure 1. Tank Pressure/Fuel Flow Indicator (5DSD625) (Sheet 1)

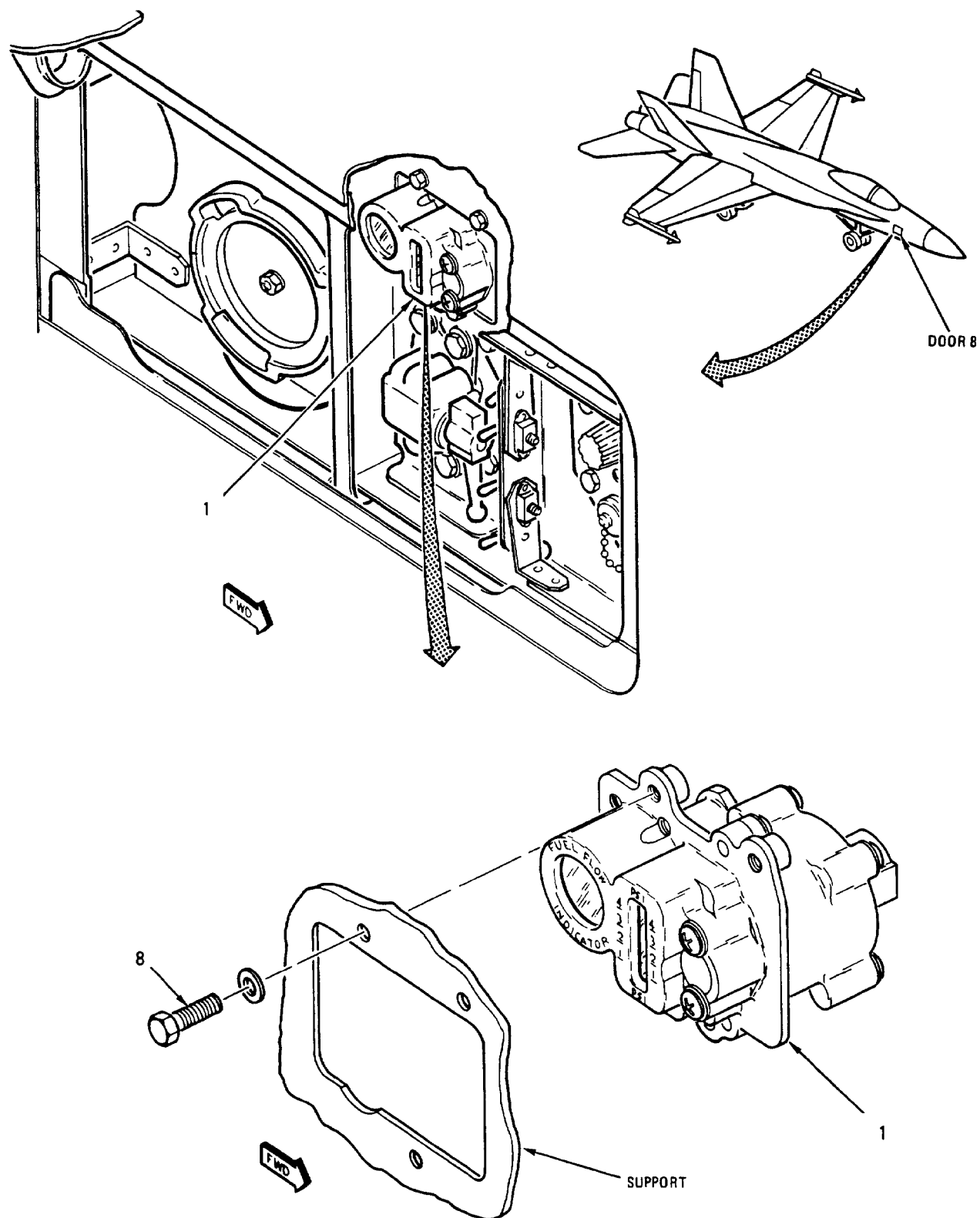


Figure 1. Tank Pressure/Fuel Flow Indicator (5DSD625) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		TANK PRESSURE/FUEL FLOW									
		INDICATOR (5DSD625)									
1	61073	.	INDICATOR, PRESSURE AND FUEL						1		PAOZZ
			FLOW, AIRCRAFT SYSTEM (TANK								
			PRESSURE/FUEL FLOW								
			INDICATOR) (86090)								
			(MCDONNELL SPEC								
			74-580068-201) (5DSD625)								
2	MS29512-04	.	PACKING						3		PAOZZ
3	7M637BD-4D	.	NIPPLE (76301)						3		PAOZZ
4	7M148V4	.	ELBOW (76301)						3		PAOZZ
	7M148DA4	.	ELBOW (76301)						3	*	PAOZZ
5	74A580674-1003	.	TUBE ASSEMBLY, METAL - VENT						1		MGOZZ
			PRE-CHECK (PRESS) (76301)								
6	74A580677-1003	.	TUBE ASSEMBLY, METAL - VENT						1		MGOZZ
			PRE-CHECK (RETURN) (76301)								
7	74A580685-1005	.	TUBE ASSEMBLY, METAL - VENT						1		MGOZZ
			PRE-CHECK (SUPPLY) (76301)								
8	NAS673V2	.	BOLT						3		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 8)						3		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Tank Pressure/Fuel Flow Indicator (5DSD625) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

FUEL FLOW SENSOR (5VAD645)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Emergency Inflight Refueling Directional Control Valve	WP080 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	2
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 43	-	Replacement of 7M404/7M550 Fuel Couplings with Improved 7M765 Fuel Couplings (ECP- MDA-F/A-18-00143)	1 Mar 86	-

Support Equipment Required

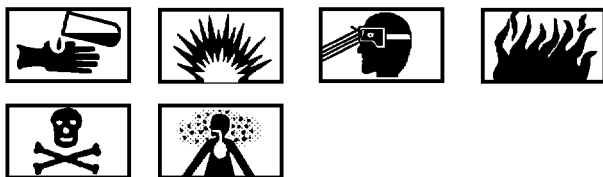
None

Materials Required (Cont)

Materials Required		Materials Required (Cont)	
Nomenclature	Specification or Part Number	Nomenclature	Specification or Part Number
Packing (2)	MS29512-04	Packing (4)	MS29513-230
Packing	MS29513-011	Packing	MS29513-330
		Petrolatum, Technical	VV-P-236 (CAGE 81348)
		Wire, Safety, Nonelectrical	MS20995NC32 (CAGE 96906)

1. REMOVAL.

- a. Defuel aircraft (A1-F18AC-PCM-000).
- b. Remove internal door NWC and door 11R (A1-F18AC-LMM-010).
- c. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- d. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.



Jet Fuel

1

- e. Position an approved safety container under fuel flow sensor (2, figure 1) to catch residual fuel.
- f. Remove coupling (1) to get clearance to tubes (16 and 19). Do not remove coupling (1) sleeve.
- g. Disconnect tubes (16 and 19) working through door 11R.
- h. Remove elbow (15) and nut (14), retainer (13), and packing (11) from fuel flow sensor (2).
- i. Remove bolt (17), connector (12), and packings (11 and 18) from fuel flow sensor (2).
- j. Remove emergency inflight refueling directional control valve (WP080 00).
- k. Remove couplings (6 and 10) (WP013 00) and remove tube (4).
- l. Remove clamp (7), bracket (3), fuel flow sensor (2) and attaching parts.

2. INSTALLATION.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

2

- b. Lubricate new packings with petrolatum.
- c. Install packing (8, figure 1).
- d. Install fuel flow sensor (2), bracket (3), clamp (7), and attaching parts.
- e. Install tube (4), packings (5 and 8). Inspect and install couplings (6) (WP013 00). If applicable, safety coupling (6) with lockwire (WP013 00). (QA) Tighten nut assembly (10) handtight.
- f. Install emergency inflight refueling directional control valve (WP080 00).
- g. Install packings (11 and 18) on bolt (17), and install connector (12) on fuel flow sensor (2). Do not tighten bolt (17).
- h. Install packing (11), retainer (13) and nut (14) on elbow (15). Position elbow (15) in valve (2). Do not tighten nut (14).
- i. Through door 11R, connect tubes (16 and 19).
- j. Tighten bolt (17) and nut (14). Safety bolt (17) with lockwire. (QA)
- k. Inspect and install coupling (1) (WP013 00). If applicable, safety coupling with lockwire (WP013 00). (QA)
- l. Remove warning tag from external power receptacle.
- m. Refuel aircraft (A1-F18AC-PCM-000) making sure FUEL FLOW INDICATOR in door 8 (A1-F18AC-LMM-010) operates and inspect fuel flow sensor (2) for leaks.
- n. Install internal door NWC and 11R (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

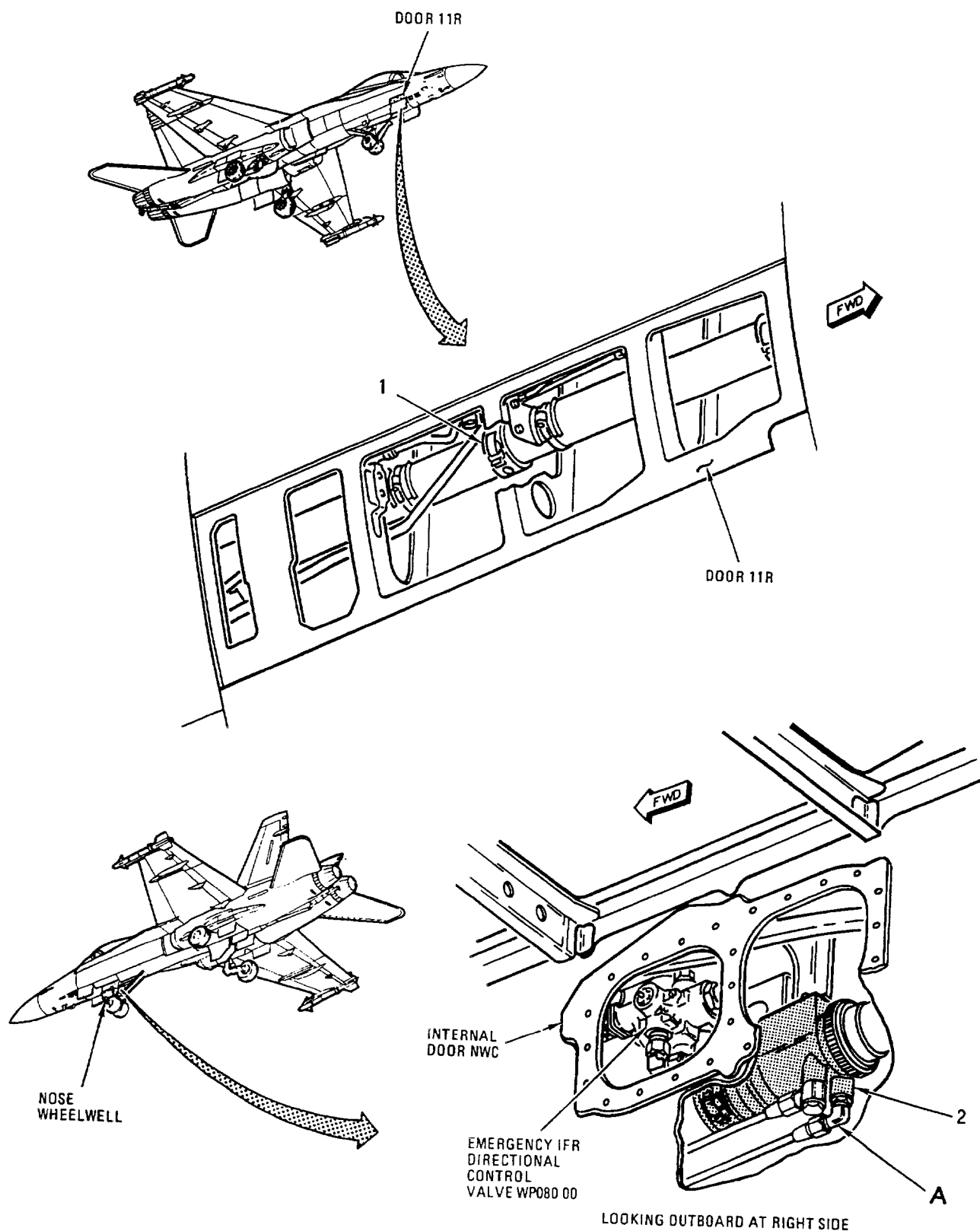


Figure 1. Fuel Flow Sensor (5VAD645) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUEL FLOW SENSOR (5VAD645)									
1	W901K28CE	.	COUPLING, CLAMP, GROOVED (79326)						1	A*	PAOZZ
			(MCDONNELL SPEC 7M765-28C)								
			(INCLUDES SLEEVE)								
	14J12-28C	.	SEE ABOVE (24984)						1	A*	PAOZZ
	W901F28DE	.	SEE ABOVE (79326)						1	B	PAOZZ
			(MCDONNELL SPEC 7M550-28D)								
2	61072	.	SENSOR, FUEL FLOW, AIRCRAFT LINE						1		PAOZZ
			MOUNTED (FUEL FLOW SENSOR)(86090)								
			(MCDONNELL SPEC 74-580068-203)								
			(5VAD645)								
3	74A580650-2005	.	BRACKET, ANGLE - REFUEL, TUBE						1		MGOZZ
			ASSY, Y218.50 (76301)								
	NAS674V3	.	BOLT (AP)						2		PAOZZ
	AN960JD416	.	WASHER (AP)						2		PAOZZ
4	74A580676-1005	.	TUBE ASSEMBLY, METAL - VENT						1		PBOZZ
			Y213.371 (76301).								
	74A580676-1007	.	SEE ABOVE.						1	*	PBOZZ
5	MS29513-230	.	PACKING						4		PAOZZ
6	W901K40CE	.	COUPLING, CLAMP, GROOVED						2	A	PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-40C) (INCLUDES SLEEVE)								
	14J12-40C	.	SEE ABOVE (24984)						2	A	PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL SPEC						2	B*	PAOZZ
			7M550-40D)								
7	NAS1787A40	.	CLAMP						1		PAOZZ
	NAS673V10	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
	A11144-7-3	.	NUT, CLIP (AP) (72962) (MCDONNELL.						2	*	PAOZZ
			SPEC ST3M523C3M)								
	130091	.	SEE ABOVE (AP) (76530).						2	*	PAOZZ
8	MS29513-330	.	PACKING						1		PAOZZ
9	74A580675-1003	.	TUBE ASSEMBLY - REFUEL, 1ST						1		PAOZZ
			ELBOW AFT, TANK NO. 1 (76301)								
	74A580675-1001	.	SEE ABOVE.						1	*	PAOZZ
10	W702-32D	.	NUT ASSEMBLY, TUBE COUPLING (79326).						1		PAOZZ
			(MCDONNELL SPEC ST7M191-32D)								
			(INCLUDES NUT AND 2 WASHERS)								
11	MS29512-04	.	PACKING						2		PAOZZ
12	7M131-4V	.	CONNECTOR (76301).						1		PAOZZ
	7M131-4D	.	CONNECTOR (76301).						1	*	PAOZZ
13	MS28773-04	.	RETAINER						1		PAOZZ
14	AN6289D4	.	NUT						1		PAOZZ
15	7M637BW-4D	.	ELBOW (76301)						1		PAOZZ
16	74A580678-1005	.	TUBE ASSEMBLY, METAL - VENT,						1		MGOZZ
			Y211.492 (76301) (SUPPLY)								
			(SUPERSEDES 74A580678-1003)								
17	7M130-4D	.	BOLT (76301)						1		PAOZZ
18	MS29513-011	.	PACKING						1		PAOZZ
19	74A580679-1003	.	TUBE ASSEMBLY, METAL - VENT,						1		MGOZZ
			Y211.879 (76301) (RETURN)								
20	74A580730-1007	.	MANIFOLD, FUELING - GROUND (76301)						1		XBOZZ
			(SUPERSEDES 74A580606-1005,								
			74A580606-1007, 74A580606-1009,								
			74A580730-1001, AND 74A580730-1003)								

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. Fuel Flow Sensor (5VAD645) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161924 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 43	F/A-18A/B
B	161353 THRU 161761 BEFORE F/A-18 AFC 43	F/A-18A/B

Figure 1. Fuel Flow Sensor (5VAD645) (Sheet 4)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
WING REFUEL LOCKOUT VALVE (5L-F116)
REFUEL/DEFUEL SYSTEM

Reference Material

Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Wing Refuel Lockout Valve (5L-F116), Figure 1	4

Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-

1. REMOVAL.

a. Observe applicable fuel maintenance precautions (WP013 00).

b. Defuel aircraft (A1-F18AC-PCM-000).

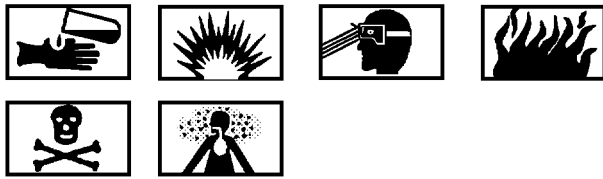
c. Make sure electrical power is not applied (A1-F18AC-LMM-000).

d. Tag aircraft external electrical receptacle with an applicable warning to indicate external electrical power is not to be applied.

e. Remove door 108 (A1-F18AC-LMM-010).

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-04
Packing (2)	MS29512-06
Petrolatum, Technical	VV-P-236 (CAGE 81348)



Jet Fuel

1

f. Position an approved safety container under valve (7, figure 1) to catch residual fuel.

g. On 161353 THRU 161965, disconnect tubes (25 and 26).

h. On 161966 AND UP, disconnect tubes (1, 3, 19 and 20).

i. On 161353 THRU 161528, disconnect tube (23).

j. On 161702 AND UP, disconnect tubes (11 and 12).

k. Support valve (8) and remove bolts (8 and 18) and attaching parts.

l. Lower valve (7) for access to connector (10).

m. Disconnect connector (10) and remove valve (7).

n. On 161353 THRU 161965, remove nipples (27) and packings (6).

o. On 161966 AND UP, remove tees (2 and 21), nut (4), retainer (5), coupling (20), and packings (6).

p. On 161353 THRU 161528, remove nipple (24) and packing (9).

q. On 161702 AND UP, remove tee (13), nipple (17), nut (16), retainer (15), and packings (9 and 14).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. On 161353 THRU 161965, install packings (6, figure 1) on nipples (27) and install nipples in valve (7).

d. On 161966 AND UP, do substeps below:

(1) Install packing (6) on coupling (20) and install coupling and tee (21) in valve (7).

(2) Install nut (4), retainer (5) and packing (6) on tee (2) and install on valve handtight.

e. On 161353 THRU 161528, install packing (9) on nipple (24) and install nipple in valve (7).

f. On 161702 AND UP, do substeps below:

(1) Install nut (16), retainer (15), and packings (9 and 14) on nipple (17) and install assembly on valve (7) handtight.

(2) Install tee (13) on nipple (17).

g. Prepare mating surfaces of valve (7) and structure for electrical bond (A1-F18AC-LMM-000).

h. Connect connector (10) to valve (7).

i. Install valve (7), bolts (8 and 18), and attaching parts.

j. On 161353 THRU 161965, connect tubes (25 and 26).

k. On 161966 AND UP, connect tubes (1, 3, 19 and 22).

l. On 161353 THRU 161528, connect tube (23).

m. On 161702 AND UP, connect tubes (11 and 12).

n. Tighten nuts (4 and 16) and coupling (20).

o. Inspect wing refuel lockout valve per substeps below:

(1) Remove no power tag from external power receptacle.

(2) Apply external electrical power (A1-F18AC-LMM-000).

(3) Set INTR WING switch (figure 1) on EXT LT control panel to INHIBIT and listen or feel for actuation of valve.

(4) Return INTR WING switch to NORM and listen or feel for actuation of valve.

(5) Remove external electrical power (A1-F18AC-LMM-000).

p. Install door 108 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

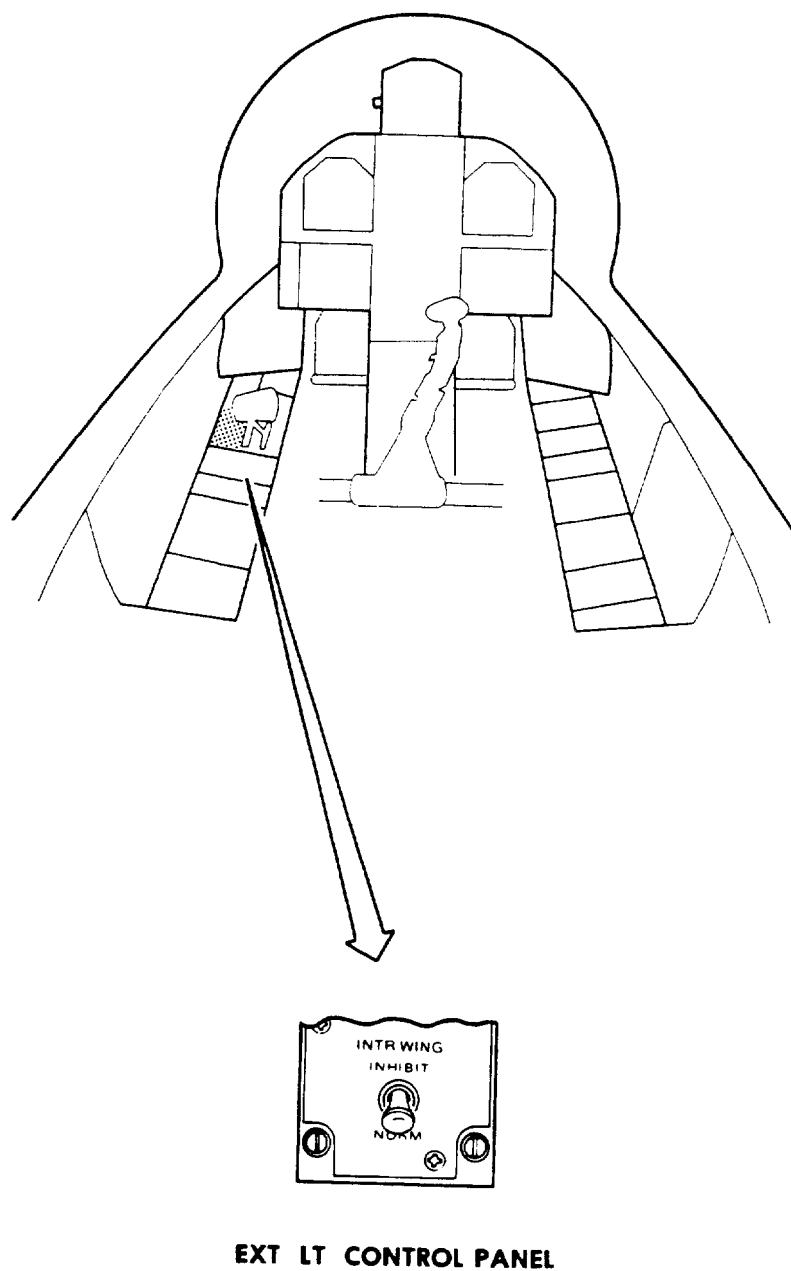


Figure 1. Wing Refuel Lockout Valve (5L-F116) (Sheet 1)

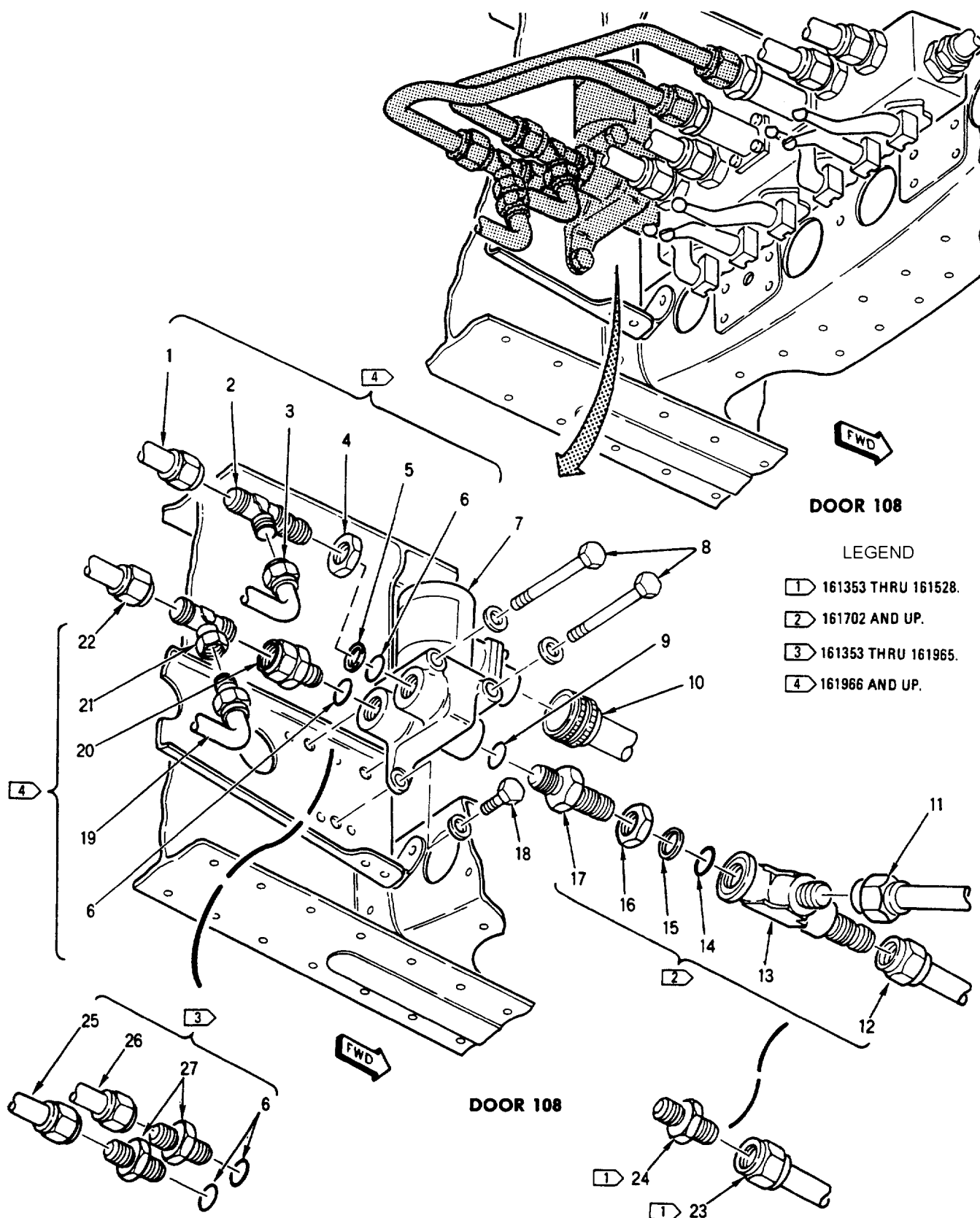


Figure 1. Wing Refuel Lockout Valve (5L-F116) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		WING REFUEL LOCKOUT VALVE (5L-F116).....			
1	74A580715-1001	. TUBE ASSEMBLY, METAL -..... PRESSURE, Y363.371 (76301)	1	F	MGOZZ
2	7M637AX-D4	. TEE, TUBE (76301).....	1	F	PAOZZ
3	74A580713-1005	. TUBE ASSEMBLY, METAL -..... PRESSURE, Y374.158 (76301)	1	F	MGOZZ
4	AN6289D4	. NUT	1	F	PAOZZ
5	MS28773-04	. RETAINER	1	F	PAOZZ
6	MS29512-04	. PACKING	2		PAOZZ
7	V44800-44	. VALVE, SOLENOID - LOCKOUT, WING	1		PAOZZ
		REFUEL (WING REFUEL LOCKOUT VALVE) (96487) (MCDONNELL SPEC 74-580061-101) (5L-F116) (REPLACES AV1G1111)			
	AV1G1111	. SEE ABOVE (73760) (USE UNTIL..... EXHAUSTED)	1	*	PAOZZ
8	NAS673V31	. BOLT	2		PAOZZ
	AN960JD10	. WASHER (USE WITH INDEX 8)	2		PAOZZ
9	MS29512-06	. PACKING	1		PAOZZ
10	MS27467T11B98S	. CONNECTOR, PLUG (5P-F116).....	1		PAOZZ
11	74A580706-1001	. TUBE ASSEMBLY - METAL PRESSURE,..... Y355.545 (76301)	1	D	MGOZZ
12	74A580707-1001	. TUBE ASSEMBLY - METAL -..... PRESSURE, Y350.623 (76301)	1	D	MGOZZ
13	7M637AM-D6	. TEE, TUBE (76301).....	1	D	PAOZZ
14	MS29512-06	. PACKING	1	D	PAOZZ
15	MS28773-06	. RETAINER	1	D	PAOZZ
16	AN6289D6	. NUT	1	D	PAOZZ
17	7M637BT-6D	. NIPPLE, TUBE (76301).....	1	D	PAOZZ
18	NAS673V4	. BOLT	1		PAOZZ
	AN960JD416	. WASHER (USE WITH INDEX 18)	1		PAOZZ
19	74A580712-1003	. TUBE ASSEMBLY, METAL -..... PRESSURE, Y373.512 (76301)	1	F	MGOZZ
20	R44150P04	. COUPLING, TUBE (50599) (MCDONNELL..... SPEC ST7M393D4)	1	F*	PAOZZ
	AP310P04	. SEE ABOVE (01673)	1	F*	PAOZZ
	AE16479-4	. SEE ABOVE (00624)	1	F*	PAOZZ
21	R44132T-04	. TEE, TUBE (50599) (MCDONNELL..... SPEC ST7M232T4)	1	F*	PAOZZ
	AP379T04	. SEE ABOVE (01673)	1	F*	PAOZZ
	AE16196-4	. SEE ABOVE (00624)	1	F*	PAOZZ
	TF379T04	. SEE ABOVE (78570)	1	F*	PAOZZ
22	74A580714-1001	. TUBE ASSEMBLY, METAL -..... PRESSURE, Y363.329 (76301)	1	F	MGOZZ
23	74A580633-1001	. TUBE ASSEMBLY, METAL -..... FUEL, Y355.955 (76301)	1	A	MGOZZ
	74A580681-1001	. TUBE ASSEMBLY, METAL -..... PRESSURE, Y355.545 (76301)	1	B	MGOZZ
24	7M637BD-6D	. NIPPLE, TUBE (76301).....	1	C	PAOZZ
25	74A580634-1001	. TUBE ASSEMBLY, METAL - FUEL	1	E	MGOZZ
		PRE-CHECK, L WG-L/O, Y362.15 (76301)			
26	74A580635-1001	. TUBE ASSEMBLY, METAL - FUEL	1	E	MGOZZ
		PRE-CHECK, R WG-L/O, Y362.865 (76301)			
27	7M637BD-4D	. NIPPLE, TUBE (76301).....	2	E	PAOZZ

Figure 1. Wing Refuel Lockout Valve (5L-F116) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161359	F/A-18A/B
B	161360 THRU 161528	F/A-18A/B
C	161353 THRU 161528	F/A-18A/B
D	161702 & UP	F/A-18A/B
E	161353 THRU 161965	F/A-18A/B
F	161966 & UP	F/A-18A/B

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

No. 1 FUEL TANK REFUEL/TRANSFER CHECK VALVE
(5VAP532)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover (F/A-18A)	WP003 00
No. 1 Fuel Tank Access Cover (F/A-18B)	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Lines Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a. Do general preparation for removal (WP013 00).

b. Remove bolts (2, figure 1) attaching parts, and valve (4).

Materials Required

2. INSTALLATION.

a. Do a general preparation for component installation (WP013 00).

b. Prepare mating surfaces of tube (1, figure 1) and valve (4) for electrical bonding at one bolt connection (A1-F18AC-LMM-000).

Nomenclature	Specification or Part Number
Packing	MS29513-224
Packing	MS29513-229
Petrolatum, Technical	VV-P-236 (CAGE 81348)

c. Prepare mating surfaces of tube (6) and valve (4) for electrical bonding at one bolt connection (A1-F18AC-LMM-000).



Petrolatum, Technical

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d. Lubricate packings (3 and 5) with petrolatum.

e. Install packings (3 and 5), valve (4), bolts (2) and attaching parts.

f. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).

g. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

h. Connect utility and emergency battery connectors (WP013 00).

i. Do substeps below:

(1) On cockpit FUEL QTY indicator, set FUEL QTY selector knob to TRANS position.

(2) Refuel aircraft using electrical power (A1-F18AC-PCM-000) and monitor FUEL QTY indicator LEFT counter.

(3) No. 1 fuel tank fuel amount (LEFT counter) increasing.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

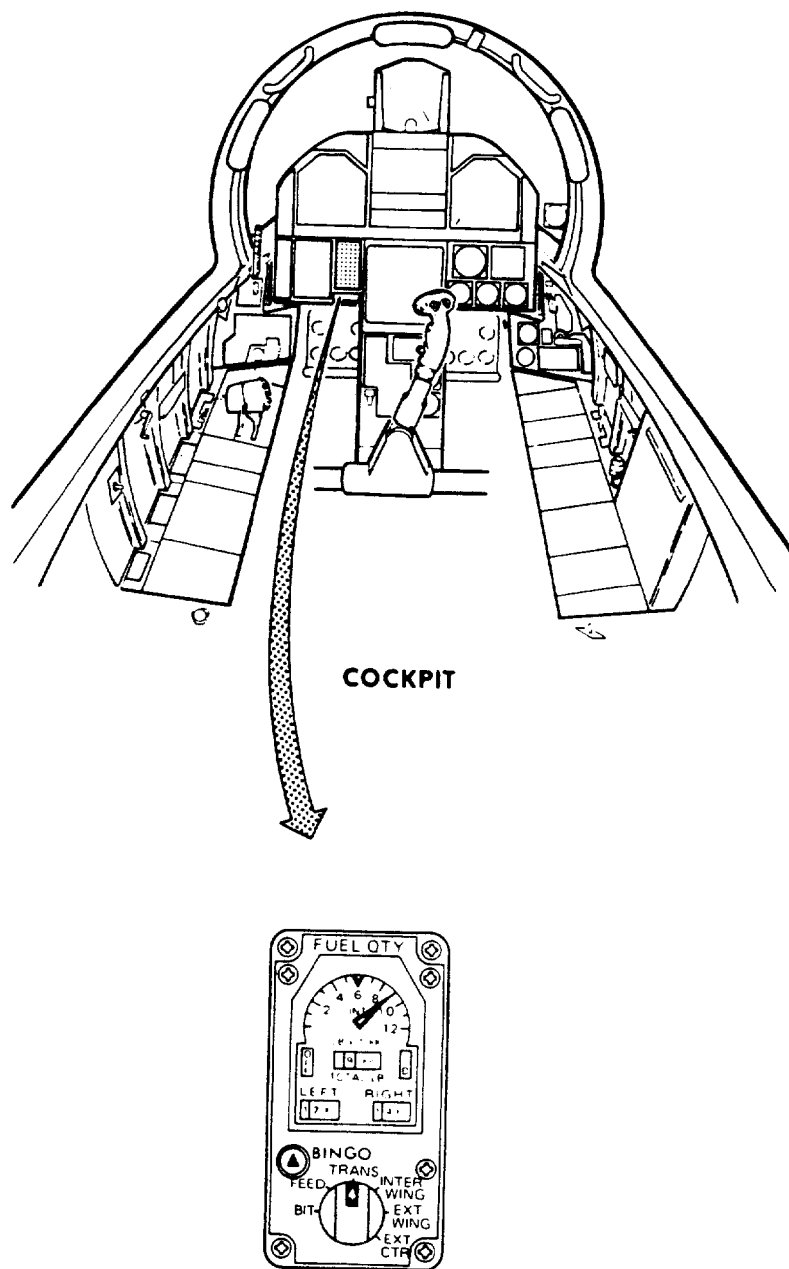
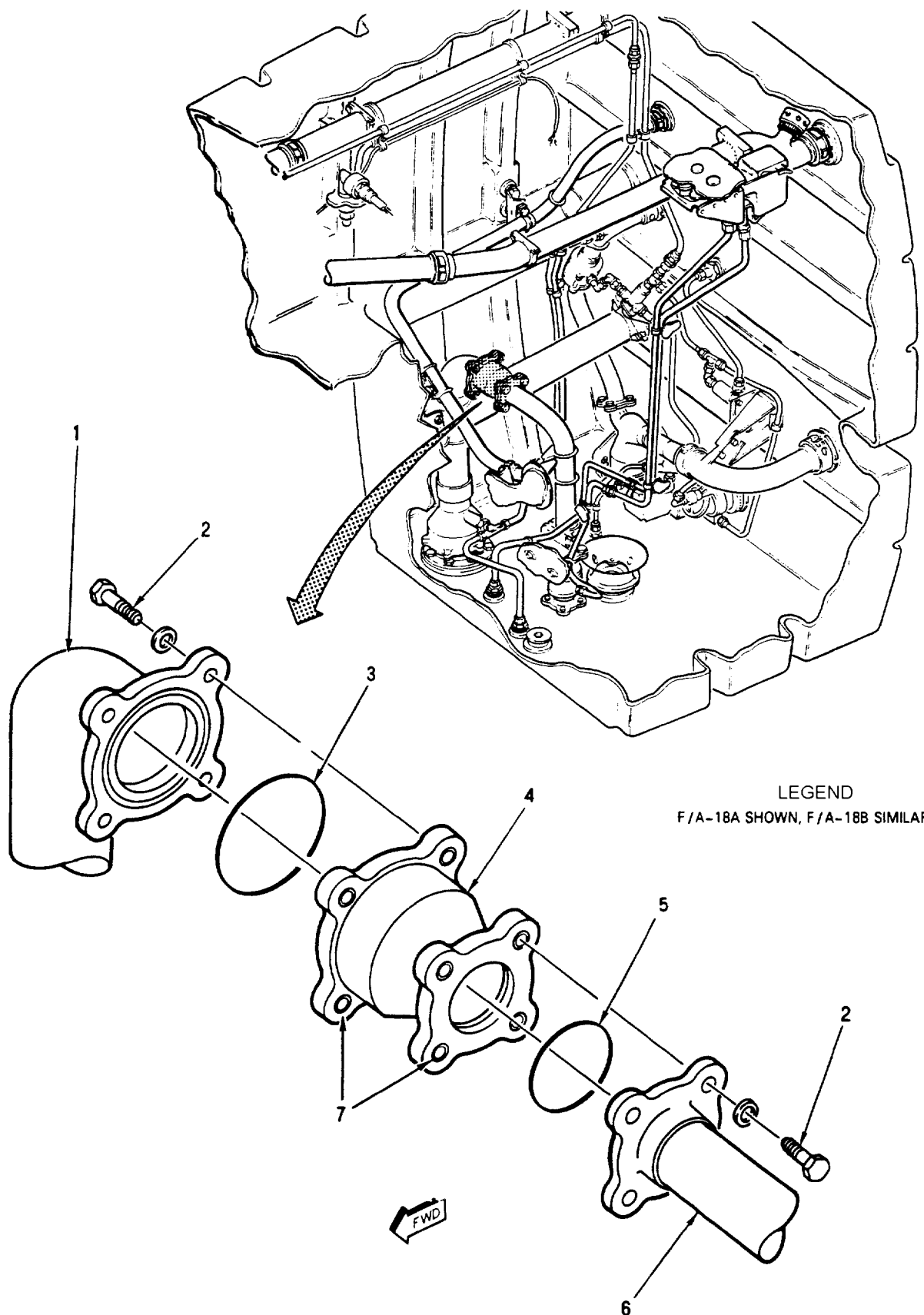


Figure 1. No. 1 Fuel Tank Refuel/Transfer Check Valve (5VAP532) (Sheet 1)



05200102

Figure 1. No. 1 Fuel Tank Refuel/Transfer Check Valve (5VAP532) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 1 FUEL TANK REFUEL/TRANSFER								
		CHECK VALVE (5VAP532)								
1	74A582004-1005	.	TUBE ASSEMBLY - REFUEL FILL,					1		XB0ZZ
			TANK NO. 1 (76301) (SUPERSEDES							
			74A585004-1003)							
2	NAS674V5	.	BOLT					8		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 2)					8		PAOZZ
3	MS29513-229	.	PACKING					1		PAOZZ
4	2760121-105	.	VALVE, CHECK - FUEL, LARGE LINE					1		PAOZZ
			MOUNTED (NO. 1 FUEL TANK							
			REFUEL/TRANSFER CHECK VALVE)							
			(92003) (MCDONNELL SPEC							
			74-580149-113) (5VAP532)							
			(REPLACES 2760121-101 & 2760121-103)							
	2760121-103	.	SEE ABOVE (92003) (MCDONNELL					1	*	PAOZZ
			SPEC 74-580149-111) (5VAP532)							
			(USE UNTIL EXHAUSTED)							
	2760121-101	.	SEE ABOVE (92003) (MCDONNELL					1	*	PAOZZ
			SPEC 74-580149-105) (5VAP532)							
			(USE UNTIL EXHAUSTED)							
5	MS29513-224	.	PACKING					1		PAOZZ
6	74A581004-1001	.	TUBE ASSEMBLY - REFUEL FILL,					1		XBOZZ
			TANK NO. 1 (76301)							
7	MS21209F4-15	.	INSERT					8		-

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. No. 1 Fuel Tank Refuel/Transfer Check Valve (5VAP532) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

No. 4 FUEL TANK REFUEL/TRANSFER CHECK VALVE
(5VAP557)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 4 Fuel Tank Forward Access Cover	WP007 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System Restrictors	WP144 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System	WP012 00
No. 4 Fuel Tank Cavity Bulkhead Fittings and Supports	WP043 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29513-224
Packing (2)	MS29513-226
Packing	MS29513-229
Packing (8)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Remove bolts and attaching parts from bracket (1, detail A, figure 1).
- c. Remove coupling (4), tube (2), and bracket (1).
- d. Remove couplings (4, detail B), packings (3), and manifold (5).
- e. Remove coupling (8, detail C) and packings (7) to disconnect tube (9).
- f. Remove valve (11), packings (10 and 12), and attaching parts.

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

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b. Lubricate new packings (3, 7, 10, and 12, figure 1) with petrolatum.

c. Prepare mating surfaces of valve (11, detail C), manifold (WP144 01), and tube (9) for electrical bonding (A1-F18AC-LMM-000).

d. Install packings (7, 10 and 12).

e. Install valve (11) with attaching parts to manifold (WP144 01) and tube (9).

f. Install coupling (8) and packings (7) to connect tube (9).

g. Install packings (3, detail B) and manifold (5) with couplings (4).

h. Install packings (3, detail A), bracket (1) and tube (2) with coupling (4) and attaching parts.

i. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

j. Install no. 4 fuel tank forward access cover (WP007 00).

k. Do substeps below:

(1) On cockpit FUEL QTY indicator, set FUEL QTY selector knob to TRANS position.

(2) Refuel aircraft using electrical power (A1-F18AC-PCM-000) and monitor FUEL QTY indicator RIGHT counter.

(3) No. 4 fuel tank fuel amount (RIGHT counter) increasing.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

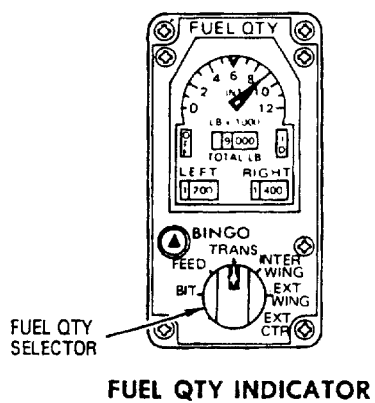
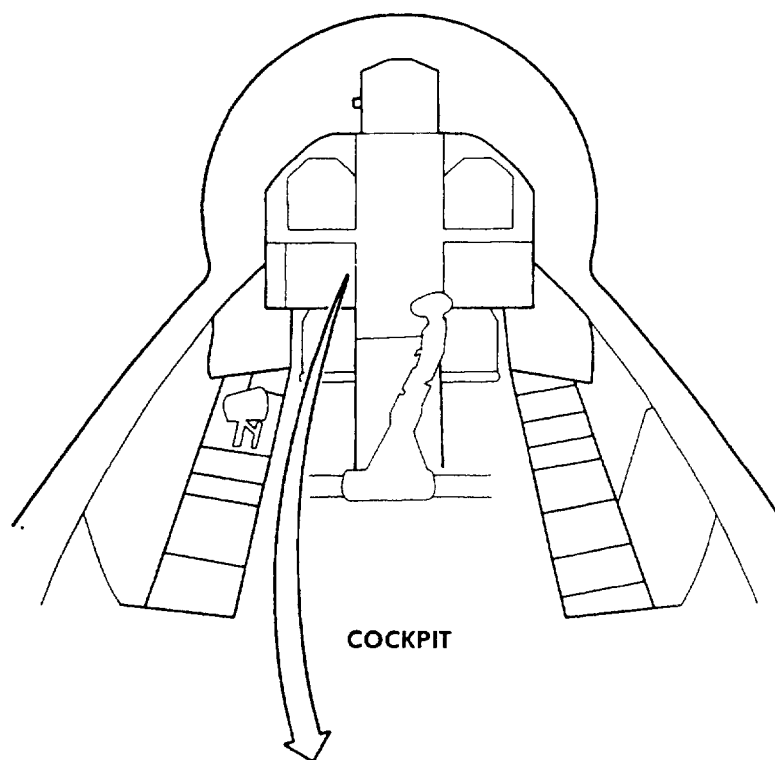


Figure 1. No. 4 Fuel Tank Refuel/Transfer Check Valve (5VAP557) (Sheet 1)

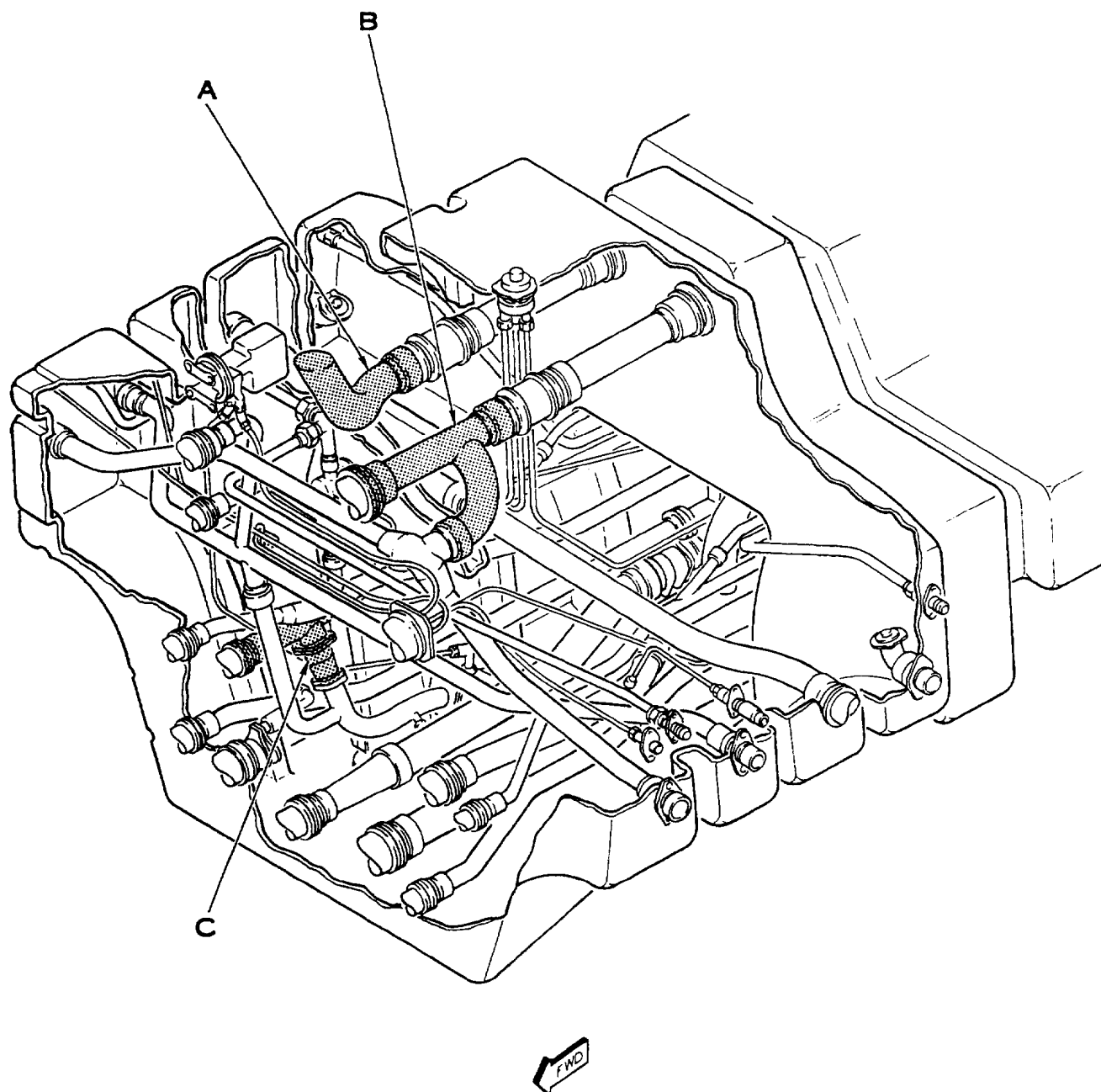


Figure 1. No. 4 Fuel Tank Refuel/Transfer Check Valve (5VAP557) (Sheet 2)

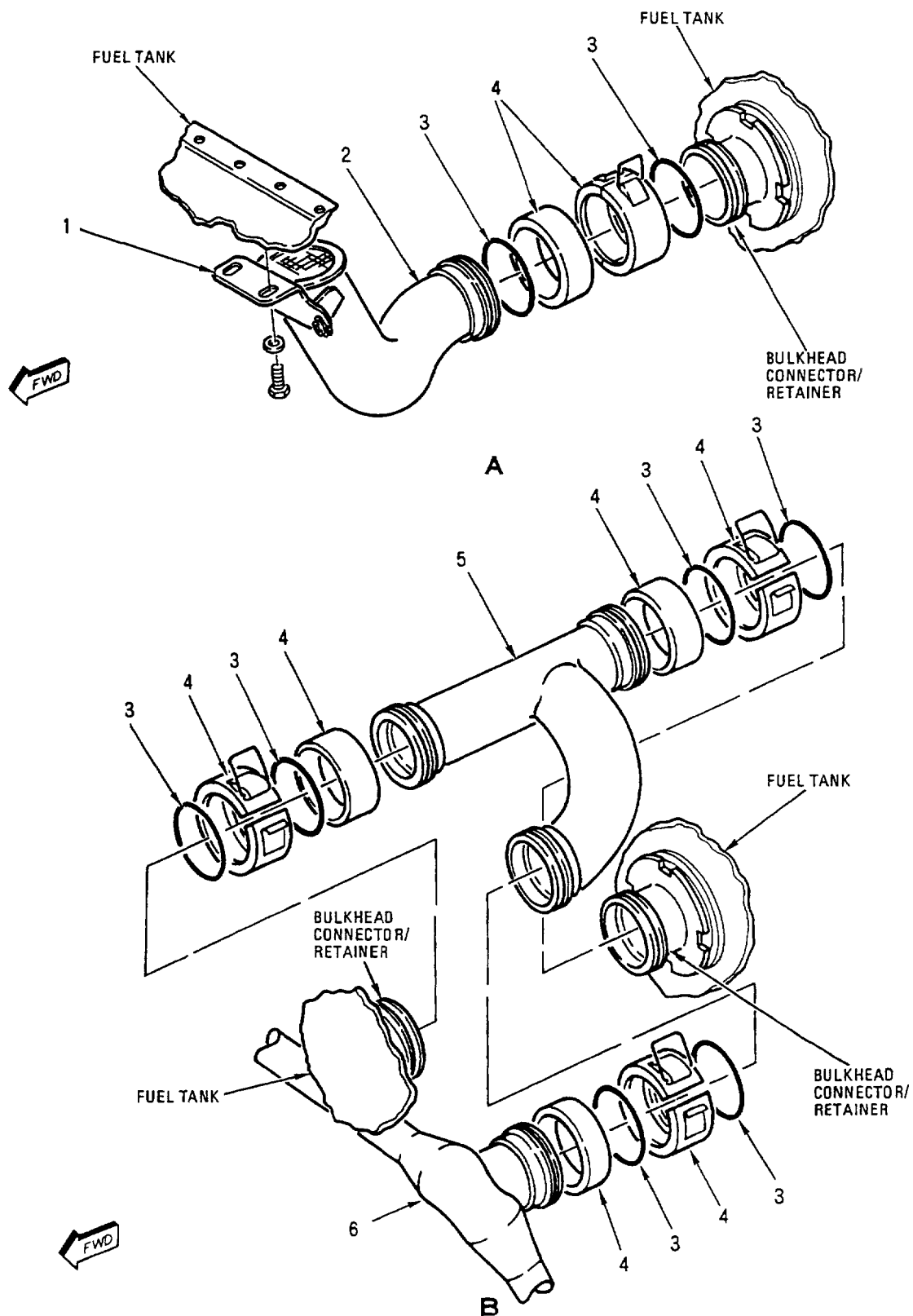


Figure 1. No. 4 Fuel Tank Refuel/Transfer Check Valve (5VAP557) (Sheet 3)

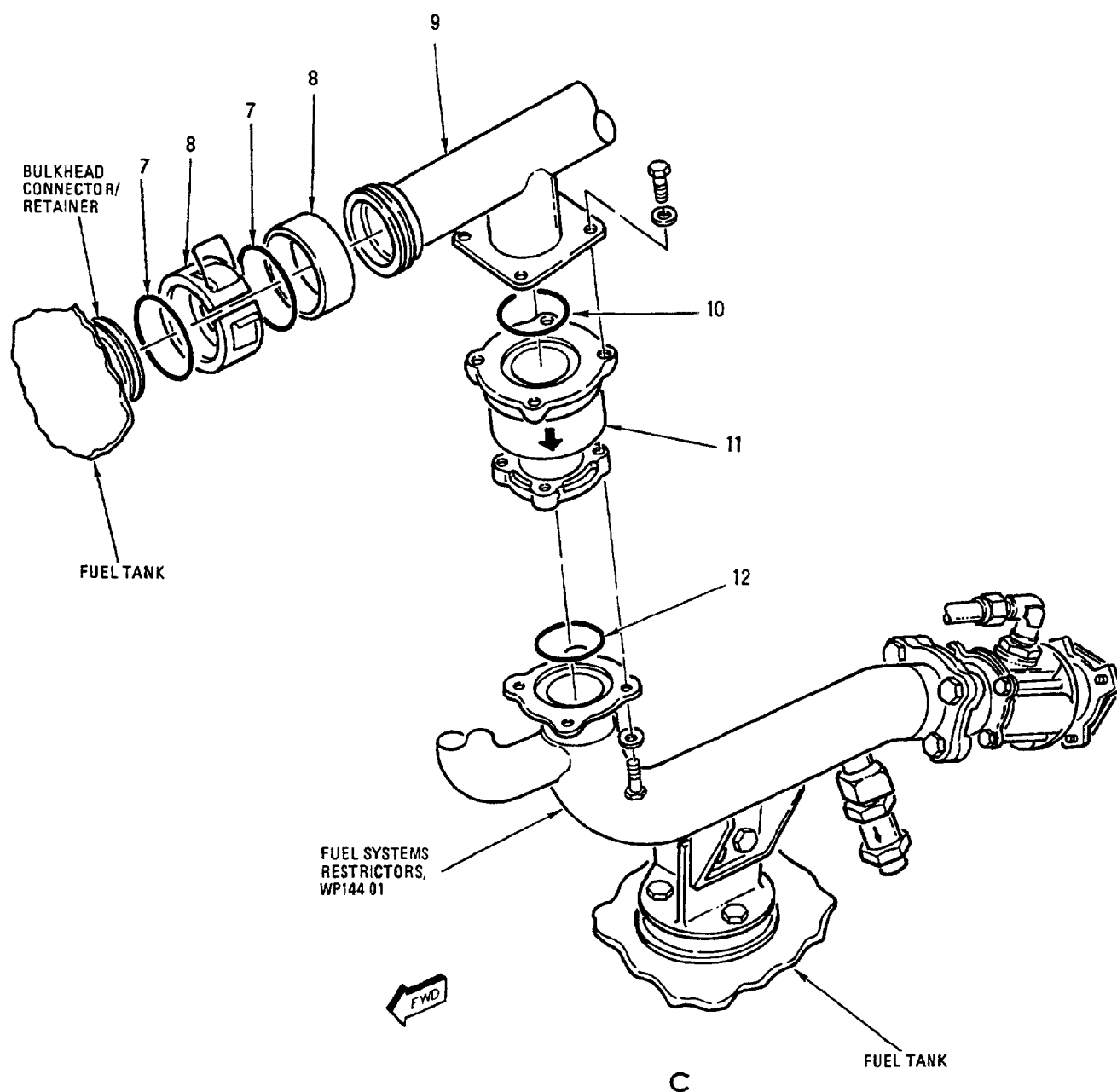


Figure 1. No. 4 Fuel Tank Refuel/Transfer Check Valve (5VAP557) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 4 FUEL TANK REFUEL/TRANSFER									
		CHECK VALVE (5VAP557)									
1	74A586429-1095	.						BRACKET (76301) (SUPERSEDES 74A586429-1015) . . .	1		XBOOO
	MS21060L3	.						NUTPLATE (USE WITH INDEX 1)	2		PAOZZ
	MS20426AD3 #	.						RIVET (AP)	2		-
	NAS674V1	.						BOLT (AP)	2		PAOZZ
	AN960JD416L	.						WASHER (AP)	2		PAOZZ
2	74A586462-1003	.						TUBE ASSEMBLY, METAL - CLIMB VENT.	1		XBOZZ
		.						(76301) (SUPERSEDES 74A586462-1001)			
	NAS673V2	.						BOLT (AP)	2		PAOZZ
	AN960JD10L	.						WASHER (AP)	2		PAOZZ
3	MS29513-230	.						PACKING	8		PAOZZ
4	W901K40DE	.						COUPLING, CLAMP, GROOVED (79326)	4		PAOZZ
		.						(MCDONNELL SPEC 7M765-40D)			
		.						(INCLUDES SLEEVE)			
	14J12-40A	.						SEE ABOVE (24984)	4		PAOZZ
	W901F40DE	.						SEE ABOVE (79326) (MCDONNELL SPEC	4	*	PAOZZ
		.						7M550-40D) (INCLUDES SLEEVE)			
5	74A586465-1007	.						MANIFOLD, FLUID, AIRCRAFT - MAIN.	1		PAOZZ
		.						VENT, FUEL TK NO. 4 (76301)			
	74A586465-1005	.						SEE ABOVE.	1	*	PAOZZ
	74A586465-1003	.						SEE ABOVE.	1	*	PAOZZ
6	74A586470-1007	.						TUBE ASSEMBLY, METAL - VENT LH	1		PAOZZ
		.						WING (76301)			
	74A586470-1003	.						SEE ABOVE.	1	*	PAOZZ
7	MS29513-226	.						PACKING	2		PAOZZ
8	W901K32DE	.						COUPLING, CLAMP, GROOVED (79326)	1		PAOZZ
		.						(MCDONNELL SPEC 7M765-32D)			
		.						(INCLUDES SLEEVE)			
	14J12-32A	.						SEE ABOVE (24984)	1		PAOZZ
	W901F32DE	.						SEE ABOVE (79326) (MCDONNELL SPEC	1	*	PAOZZ
		.						7M550-32D) (INCLUDES SLEEVE)			
9	74A586475-1007	.						TUBE ASSEMBLY, METAL - REFUEL.	1		XBOZZ
		.						TANK 4, 2.00 DIA (76301)			
		.						(SUPERSEDES 74A586475-1003)			
10	M529513-229	.						PACKING	1		PAOZZ
11	2760121-105	.						VALVE, CHECK - FUEL, LARGE LINE	1		PAOZZ
		.						MOUNTED (NO. 4 FUEL TANK			
		.						REFUEL/TRANSFER CHECK VALVE)			
		.						(92003) (MCDONNELL SPEC			
		.						74-580149-113) (5VAP557)			
	2760121-103	.						SEE ABOVE (MCDONNELL SPEC 74-580149-111).	1	*	PAOZZ
	2760121-101	.						SEE ABOVE (92003) (MCDONNELL	1	*	PAOZZ
		.						SPEC 74-580149-105)			
	NAS674V4	.						BOLT (AP)	8		PAOZZ
	AN960JD416L	.						WASHER (AP)	8		PAOZZ
12	MS29513-224	.						PACKING	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED AT
INSTALLATION.

Figure 1. No. 4 Fuel Tank Refuel/Transfer Check Valve (5VAP557) (Sheet 5)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
REFUEL/DEFUEL SHUTOFF VALVE (5VAP533)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover - F/A-18A	WP003 00
No. 1 Fuel Tank Access Cover - F/A-18B	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-04
Packing	MS29512-06
Packing (2)	MS29513-230
Packing	MS29513-232
Packing	MS29513-349
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect tubes (9, 11, and 17, figure 1, detail A).
- c. Remove coupling (3).
- d. Remove bolts (5), attaching parts and valve (4).
- e. Remove tee (10), nut (8), retainer (7), and nipple (16) from valve (4).

2. INSTALLATION.

- a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

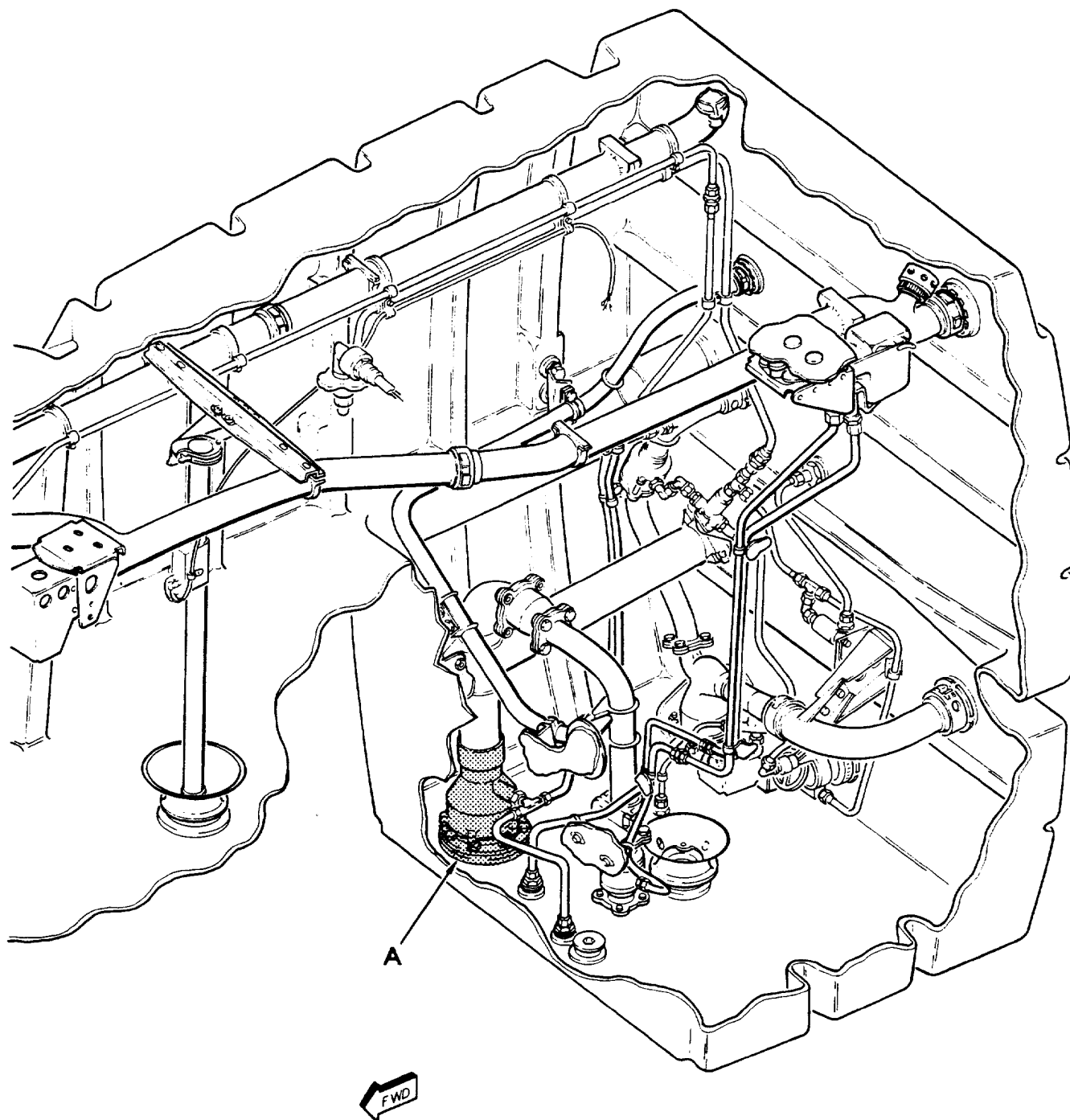
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- b. Lubricate new packings with petrolatum.
- c. Install packing (15, figure 1) on nipple (16) and install nipple in valve (4).
- d. Install nut (8), retainer (7), and packing (6) on tee (10). Install tee in valve (4).
- e. Install packings (12 and 13).
- f. Prepare mating surface of valve (4) and fuel tank for electrical bond at one bolt connection (A1-F18AC-LMM-000).
- g. Install valve (4) with bolts (5) and attaching parts.

- h. Connect tubes (9, 11, and 17).
- i. Install coupling (3) and packings (2).
- j. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)
- k. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).
- l. Connect utility and emergency battery connectors (WP013 00).
- m. Test shutoff valve operation by refueling aircraft (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

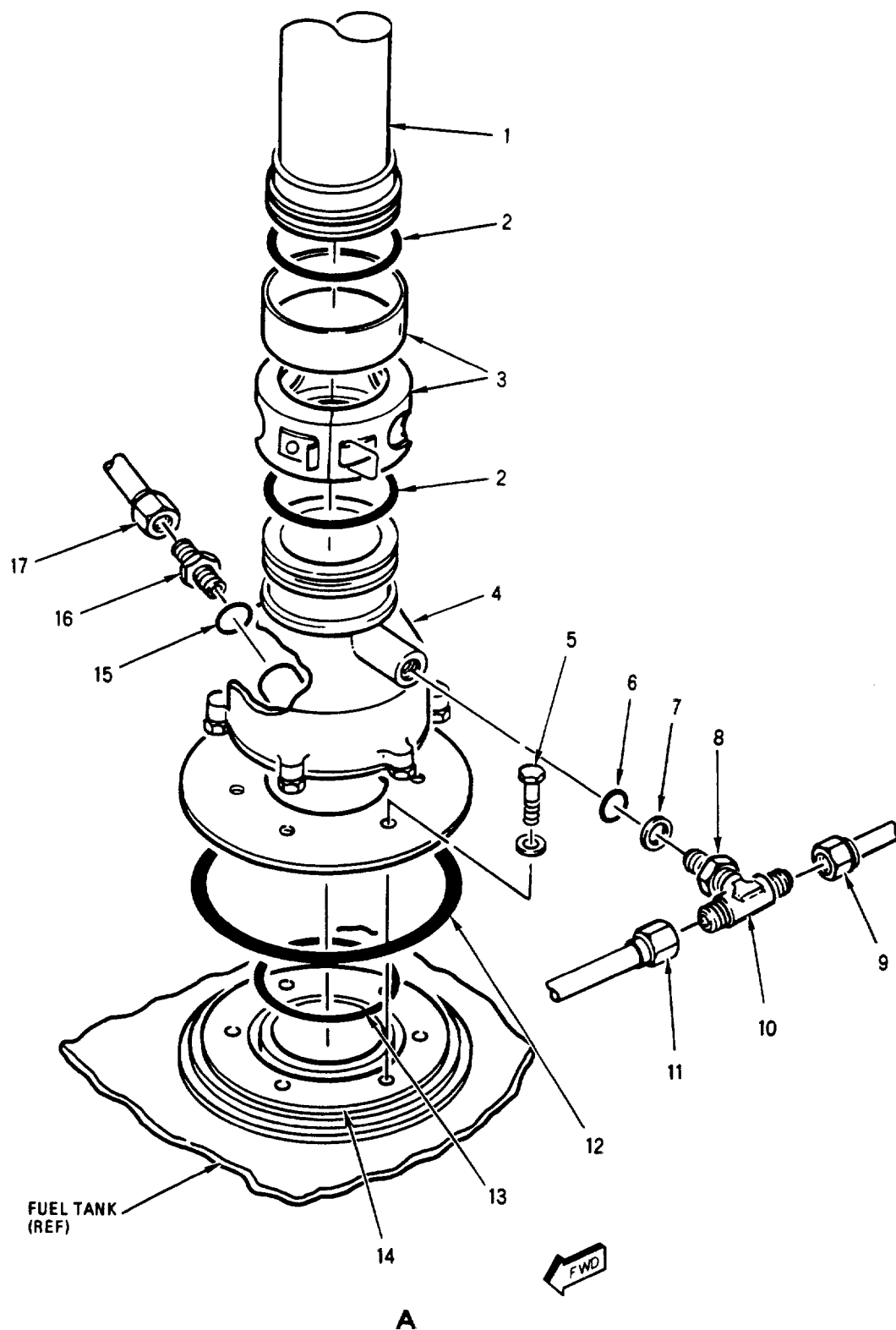


LEGEND

F/A-18A SHOWN, F/A-18B SIMILAR

Figure 1. Refuel/Defuel Shutoff Valve (5VAP533) (Sheet 1)

05400101



INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		REFUEL/DEFUEL SHUTOFF VALVE (5VAP533)								
1	74A582004-1005	.	TUBE ASSEMBLY - REFUEL MANIFOLD,					1		XBOZZ
			TANK NO. 1 (76301) (SUPERSEDES 74A582004-1003)							
2	MS29513-230	.	PACKING					2		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED (79326).					1		PAOZZ
			(MCDONNELL SPEC 7M765-40D) (INCLUDES SLEEVE)							
	14J12-40A	.	SEE ABOVE (24984)					1		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL SPEC 7M550-40D)					1	*	PAOZZ
4	40C132-3	.	VALVE, SHUTOFF, REFUEL/DEFUEL					1		PAOZZ
			(REFUEL/DEFUEL SHUTOFF VALVE) (82829) (MCDONNELL SPEC 74-580051-103) (5VAP533) (REPLACES 40C132-2)							
	40C132-2	.	SEE ABOVE (MCDONNELL SPEC 74-580051-101) (5VAP533) (USE UNTIL EXHAUSTED)					1	*	PAOZZ
5	NAS674V6	.	BOLT					6		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 5)					6		PAOZZ
6	MS29512-04	.	PACKING					1		PAOZZ
7	MS28773-04	.	RETAINER					1		PAOZZ
8	AN6289D4	.	NUT					1		PAOZZ
9	74A582016-1001	.	TUBE ASSEMBLY, METAL - M/F PRESS,					1		MGOZZ
			Y373.732 (76301)							
10	7M637BX-4D	.	TEE (76301)					1		PAOZZ
11	74A580661-1001	.	TUBE ASSEMBLY, METAL - MOTIVE FLOW.					1		MGOZZ
			Y359.615 (76301)							
12	MS29513-349	.	PACKING					1		PAOZZ
13	MS29513-232	.	PACKING					1		PAOZZ
14	74A581002-1001	.	ADAPTER, STRAIGHT, FLANGE TO					1		XBOOO
			TUBE - REFUEL, TANK NO. 1 (76301)							
	MS21209F4-15	.	INSERT (USE WITH INDEX 14).					6		PAOZZ
15	MS29512-06	.	PACKING					1		PAOZZ
16	7M637BD-6D	.	NIPPLE (76301)					1		PAOZZ
17	74A582063-1001	.	TUBE ASSEMBLY, METAL - VENT,					1	A	MGOZZ
			Y375.382 (76301)							
	74A582165-1001	.	TUBE ASSEMBLY, METAL - VENT,					1	B	MGOZZ
			VENT Y375.061 (76301)							

* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161353 & UP	F/A-18A
B	161354 & UP	F/A-18B

Figure 1. Refuel/Defuel Shutoff Valve (5VAP533) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

No. 4 FUEL TANK AUTOMATIC DRAIN VALVE
(5VAP568)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 4 Fuel Tank Forward Access Cover	WP007 00
Fuel Tank Maintenance Precautions and General Preparations	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System Restrictors	WP144 01
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 120 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing (2)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Do general preparation for removal (WP013 00).

b. Remove coupling (3), packings (2), tube (1), bracket (4), and attaching parts.

c. Remove drain valve (6, detail B) and packing (5).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum before installation.

c. Install packing (5, figure 1, detail B) and drain valve (6).



To prevent binding of drain valve poppet do not overtorque drain valve.

d. Torque drain valve (6) 60 to 75 inch-pounds. (QA)

e. Install packings (2, detail A), tube (1), bracket (4), and attaching parts.

f. Install coupling (3).

g. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

h. Install no. 4 fuel tank forward access cover (WP007 00).

i. Refuel aircraft (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

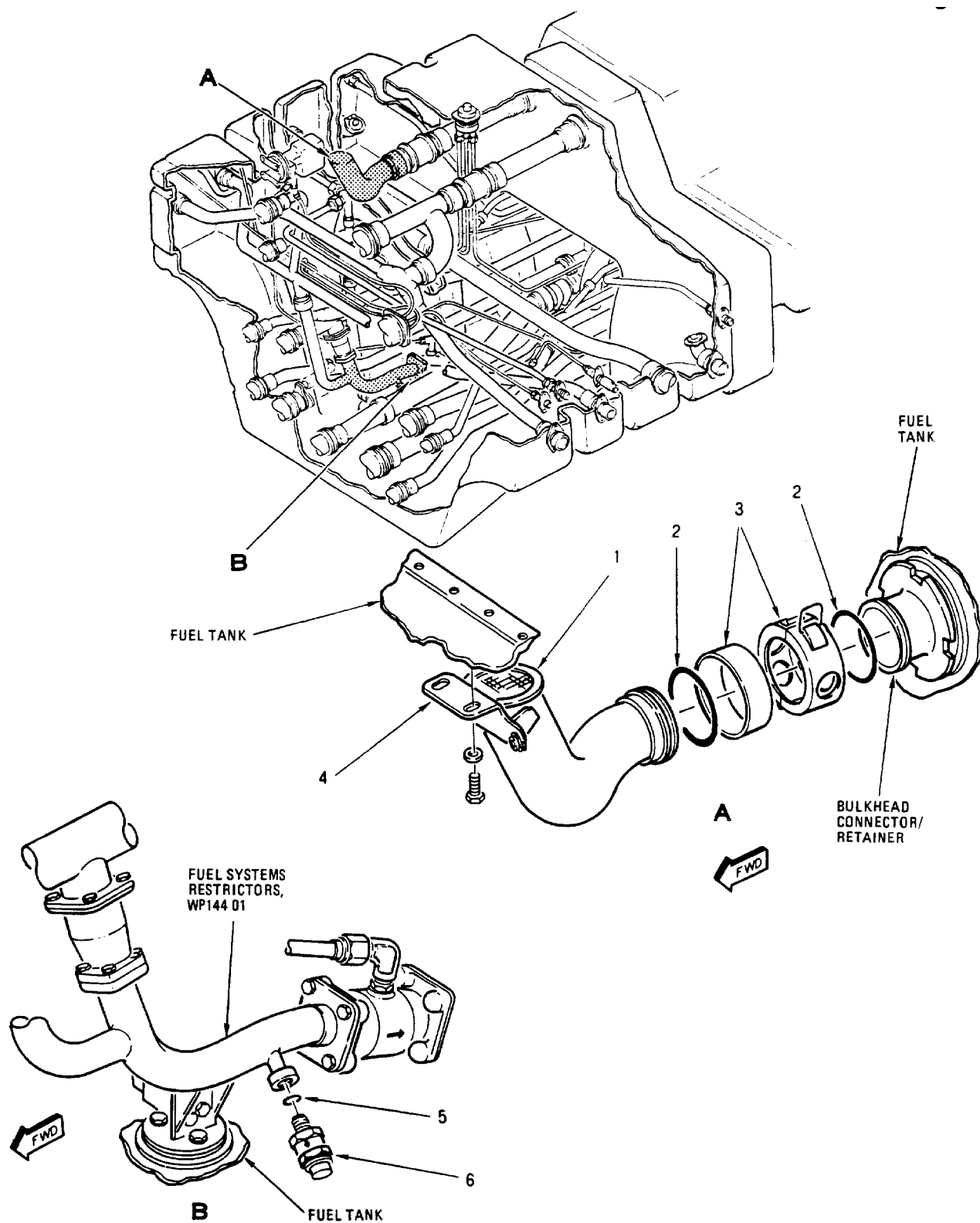


Figure 1. No. 4 Fuel Tank Automatic Drain Valve (5VAP568) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		No. 4 FUEL TANK AUTOMATIC DRAIN									
		VALVE (5VAP568)									
1	74A586462-1003	.	TUBE ASSEMBLY, METAL - CLIMB						1		XBOZZ
			VENT (76301) (SUPERSEDES								
			74A586462-1001)								
	NAS673V2	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
2	MS29513-230	.	PACKING						2		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-40D) (INCLUDES SLEEVE)								
	14J12-40A	.	SEE ABOVE (24984)						1		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL						1	*	PAOZZ
			SPEC 7M550-40D) (INCLUDES								
			SLEEVE)								
4	74A536429-1095	.	BRACKET (76301) (SUPERSEDES						1		XBOOO
			74A586429-1015)								
	MS21060L3	.	PLATENUT (USE WITH INDEX 4)						2		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
	NAS674V1	.	BOLT (AP)						2		XBOZZ
	AN960JD416L	.	WASHER (AP)						2		PAOZZ
5	MS29512-06	.	PACKING						1		PAOZZ
6	0130010700-4	.	VALVE, CHECK - REFUEL/SCAVENGE.						1		PAOZZ
			CONTROL (NO. 4 FUEL TANK								
			AUTOMATIC DRAIN VALVE)								
			(83533) (MCDONNELL SPEC								
			74-580059-107) (5VAP568)								
			(REPLACES 130010700-2)								
	0130010700-2	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74-580059-103) (5VAP568)								
			(USE UNTIL EXHAUSTED)								
* ALTERNATE OR EQUIVALENT											
PARTS. (WP002 00)											
# SIZE/LENGTH TO BE DETERMINED											
AT INSTALLATION.											

Figure 1. No. 4 Fuel Tank Automatic Drain Valve (5VAP568) (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

DEFUEL VALVE (5VAP521)

REFUEL/DEFUEL SYSTEM

Title	WP NUMBER
Defuel Valve - 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53	056 01
Defuel Valve - 161716 THRU 161761 BEFORE F18 AFC 18 AND F18 AFC 53	056 02
Defuel Valve - 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18 AND F18 AFC 53	056 03

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

DEFUEL VALVE (5VAP521)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing (6)	MS29513-226
Packing (2)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Remove no. 3 fuel tank access cover (WP006 00) and do a general preparation for removal (WP013 00).

b. Remove coupling (3, figure 1, detail A), packings (2), and tube (1).

c. Remove couplings (6, detail B) and packings (5).

d. Disconnect tube (10).

e. Disconnect clamps (12, 16, and 17) and attaching parts.

- f. Remove bolts (8), manifold (7), and packing (5).
- g. Disconnect tube (30, detail C).
- h. Remove screen (21) and attaching parts.
- i. Remove or loosen bolts (27 and 28) and attaching parts, as required, to remove web (20).
- j. Remove tube (36, detail D).
- k. Remove bolts (31), attaching parts, and brackets (32 and 35), tube (18) and valve (40) as a unit.
- l. Remove bolts (41), attaching parts, brackets (32 and 35), and tube (18) from valve (40).
- m. Remove nipple (37) and packing (38) from valve (40) and packing (5) from tube (18).

2. INSTALLATION.

- a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

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- b. Lubricate new packings with petrolatum.
- c. Install packing (38, detail D) and nipple (37) on valve (40) and packing (5) on tube (18).
- d. Prepare mating surfaces of valve (40), brackets (32 and 35), tube (18), bolts (31 and 41) and beam for electrical bonding (A1-F18AC-LMM-000).
- e. Position tube (18), then brackets (32 and 35) on valve (40) and install bolts (41) and attaching parts.
- f. Position brackets (32 and 35), tube (18) and valve (40) as a unit and install bolts (32) and attaching parts.

- g. Install tube (36).
- h. Inspect for and remove foreign objects from below baffle area. (QA)
- i. Position web (20, detail C) under webs (23 and 25) with forward edge between fuel tank and beam.
- j. Install or tighten bolts (27 and 28) and attaching parts as required.
- k. Install screen (21) and attaching parts.
- l. Connect tube (30).
- m. Prepare mating surfaces of manifold (7, detail B), and web (20) for electrical bonding (A1-F18AC-LMM-000).
- n. Install packing (5) on tube (18) and install manifold (7), bolts (8) and attaching parts.
- o. Connect clamps (12, 16, and 17) and install attaching parts.
- p. Connect tube (10).
- q. Install packings (5) and couplings (6).
- r. Install packings (2, detail A), tube (1), and coupling (3).
- s. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)
- t. Install no. 3 fuel tank access cover (WP006 00).
- u. Connect utility and emergency battery connectors (WP013 00).

- v. Test defuel valve by refueling aircraft to 500 pounds then defuel (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

- 4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

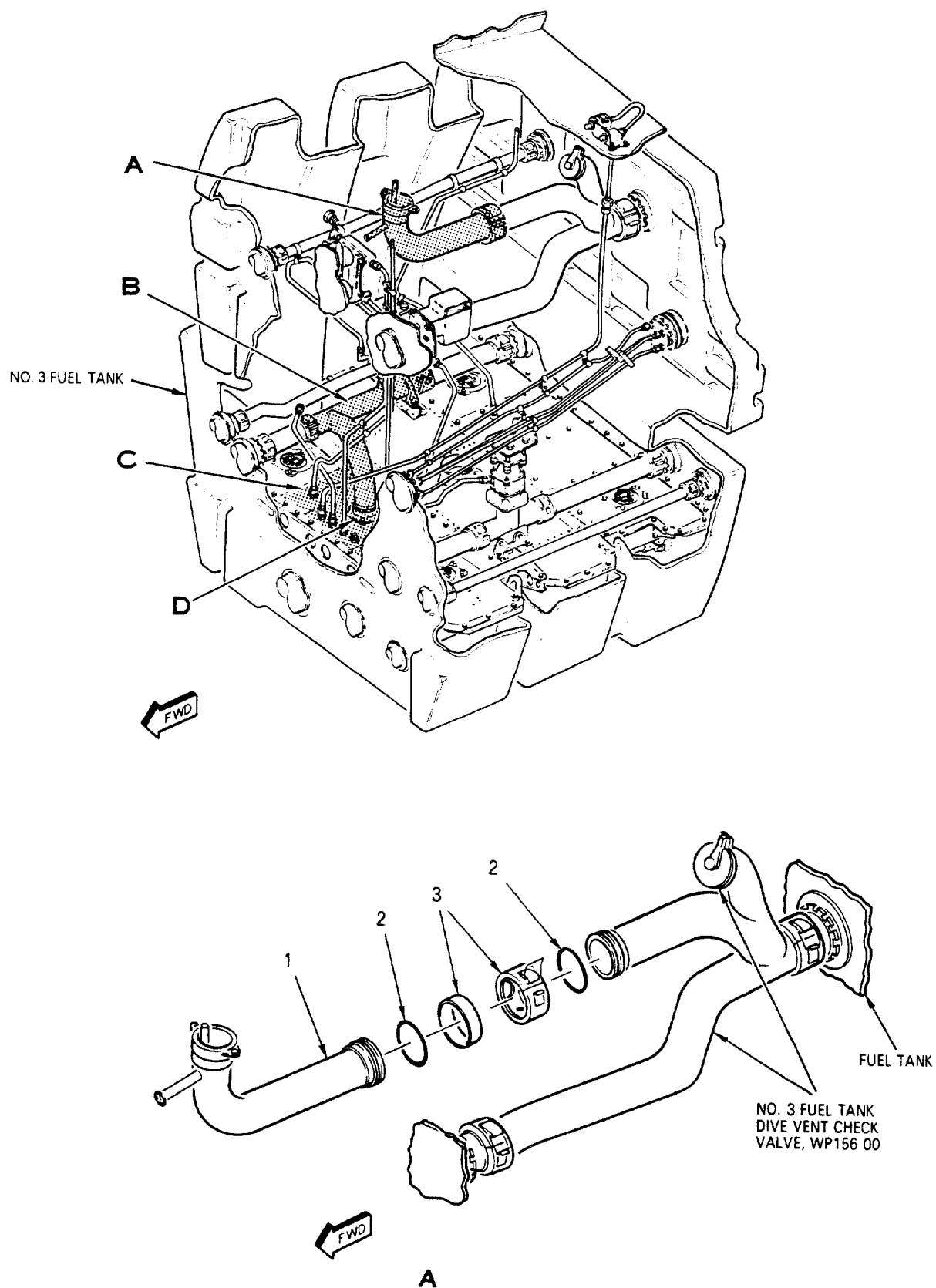


Figure 1. Defuel Valve (5VAP521) (Sheet 1)

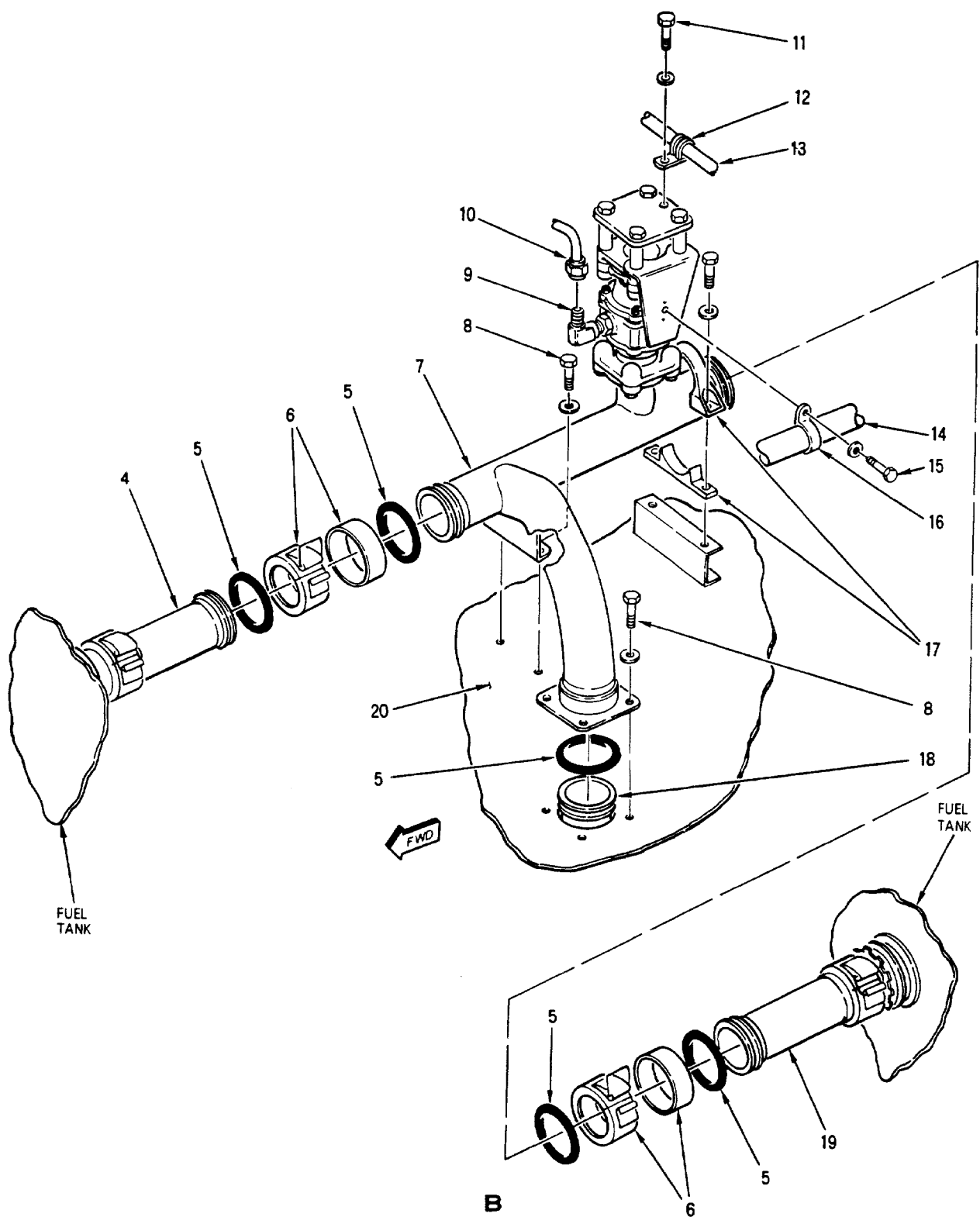


Figure 1. Defuel Valve (5VAP521) (Sheet 2)

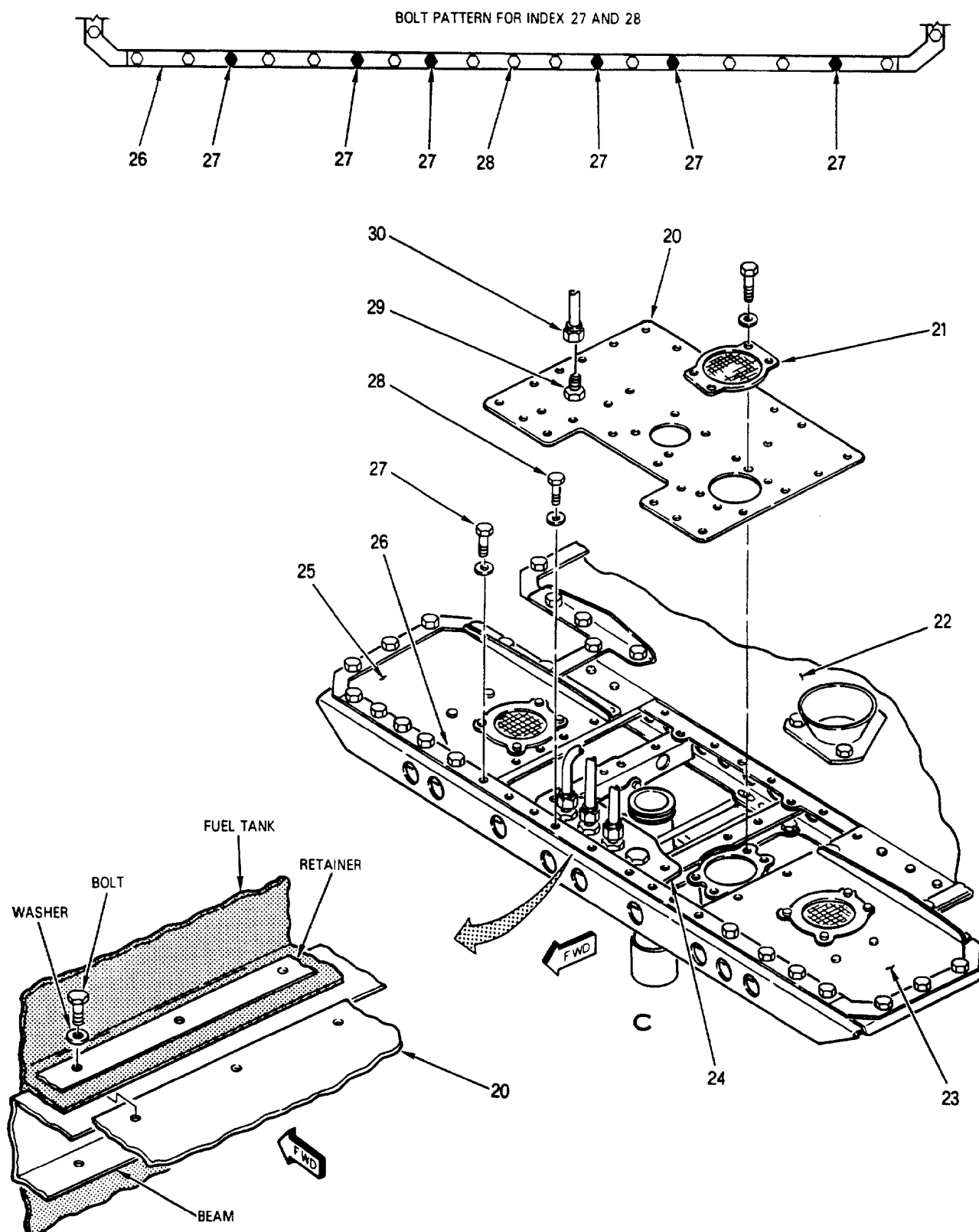


Figure 1. Defuel Valve (5VAP521) (Sheet 3)

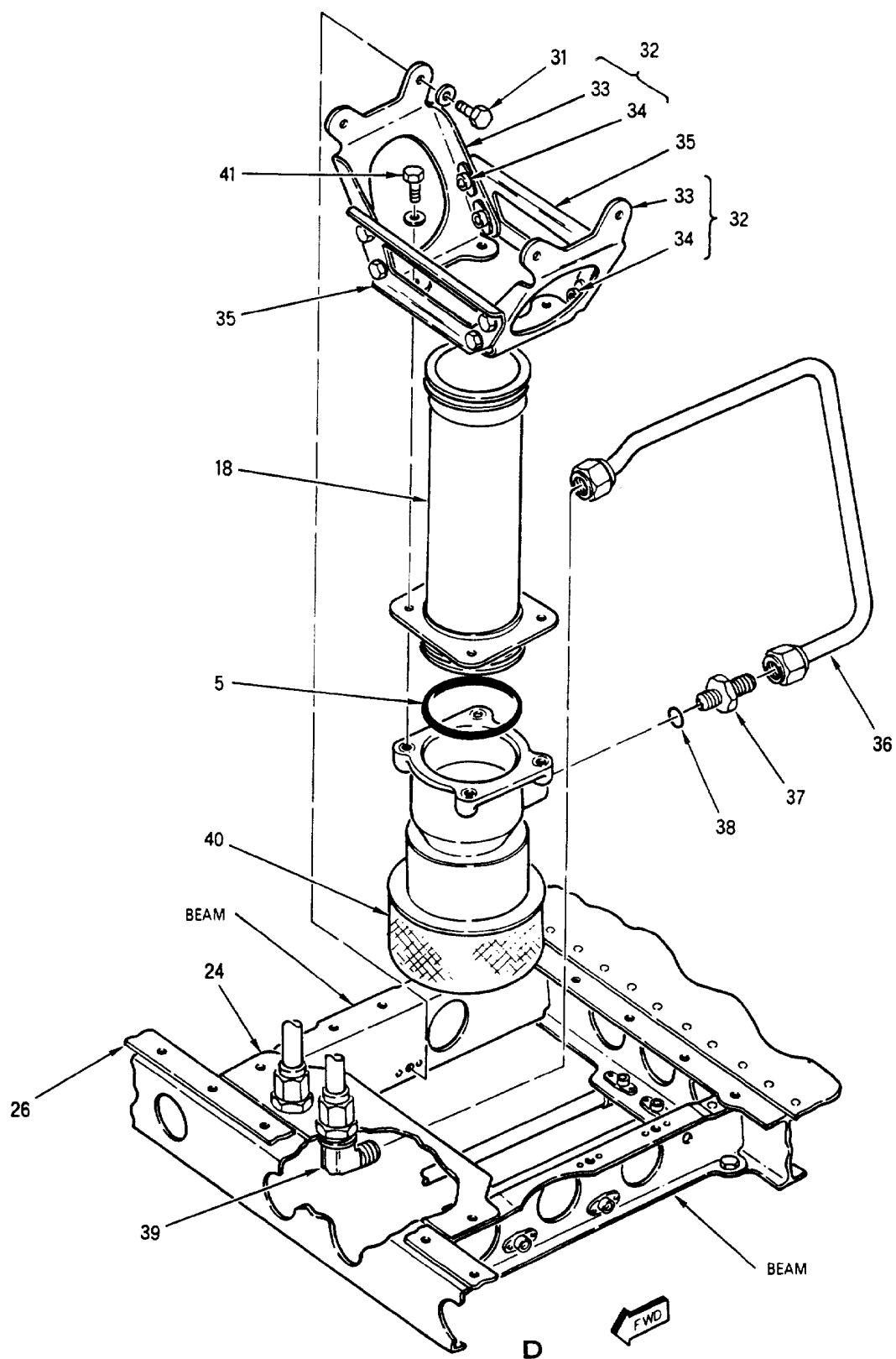


Figure 1. Defuel Valve (5VAP521) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		DEFUEL VALVE (5VAP521)									
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT,						1		XBOOO
			FUEL TANK NO. 3 (76301)								
	NS103597-02	.	NUT, SELF-LOCKING, PLATE						1	*	PAOZZ
			(80539) (MCDONNELL SPEC								
			ST3M470C3M) (USE WITH INDEX 1)								
	F10965-1-3	.	SEE ABOVE (72962)						1	*	PAOZZ
	F29339-01-3	.	SEE ABOVE (15653)						1	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
2	MS29513-230	.	PACKING						2		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-40D) (INCLUDES SLEEVE)								
	14J12-40A	.	SEE ABOVE (24984)						1		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL						1	*	PAOZZ
			SPEC 7M550-40D) (INCLUDES SLEEVE)								
4	74A586324-1013	.	TUBE ASSEMBLY, METAL - REFUEL						1		XBOZZ
			SYSTEM, TANK NO. 3 (76301)								
			(SUPERSEDES 74A586324-1009)								
5	MS29513-226	.	PACKING						6		PAOZZ
6	W901K32DE	.	COUPLING, CLAMP, GROOVED						2		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-32D) (INCLUDES SLEEVE)								
	14J12-32A	.	SEE ABOVE (24984)						2		PAOZZ
	W901F32DE	.	SEE ABOVE (79326) (MCDONNELL						2	*	PAOZZ
			SPEC 7M550-32D) (INCLUDES								
			SLEEVE)								
7	74A586326-1005	.	MANIFOLD, DEFUELING - TANK						1		XBOZZ
			NO. 3 (76301)								
8	NAS673V2	.	BOLT						6		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 8)						6		PAOZZ
9	7M148DA6	.	ELBOW (76301)						1		PAOZZ
10	74A586341-1005	.	TUBE ASSEMBLY, METAL - PILOT						1		MGOZZ
			VALVE RH PORT TO REFUEL								
			V (76301)								
11	NAS673V5	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 11)						1		PAOZZ
12	MS25281-R6	.	CLAMP (SUPERSEDES MS25281-6)						1		PAOZZ
13	74A586314-1001	.	TUBE ASSEMBLY, METAL - AFT,						1		MGOZZ
			INVERTED FLT COMPT,								
			TK 3 (76301)								
14	74A586335-1005	.	TUBE ASSEMBLY, METAL - MF						1		XBOZZ
			PRESS TO TANK 1, TANK 3								
			BYPASS (76301)								
15	NAS673V5	.	BOLT (AP)						1		PAOZZ
	AN960JD10	.	WASHER (AP)						1		PAOZZ
16	MS25281-R20	.	CLAMP						1		PAOZZ
17	NAS1787A32G	.	CLAMP						1		PAOZZ
	NAS673V9	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
18	74A586327-1007	.	TUBE ASSEMBLY, METAL -						1		XBOZZ
			DEFUEL TANK NO. 3 (76301)								

Figure 1. Defuel Valve (5VAP521) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
19	74A586324-1011	.	TUBE ASSEMBLY, METAL - REFUEL	.	SYSTEM, TANK NO. 3 (76301)				1		XBOZZ
		.	(SUPERSEDES 74A586324-1007)								
20	74A586303-2535	.	SKIN ASSY (WEB) (76301) (FOR	.	REPAIR SEE WP024 04)				1		XBOOO
21	74A586637-1005	.	SCREEN ASSY - INVERTED FLIGHT	.	BAFFLE, TANKS NO. 2 & 3 (76301)				1		XBOZZ
	NAS673V5	.	BOLT (AP)	.					4		PAOZZ
	AN960JD10L	.	WASHER (AP)	.					4		PAOZZ
22	74A586303-2563	.	CENTER PANEL (76301) (DOUBLE	.	HINGE) (FOR REPAIR SEE WP024 04)				1	A	XBOOO
	74A586303-2547	.	PANEL ASSY, CENTER (76301) (SINGLE	.	HINGE) (FOR REPAIR SEE WP024 04)				1	B*	XBOOO
	74A586303-2531	.	CENTER PANEL (76301) (NO HINGE)	.	(FOR REPAIR SEE WP024 04)				1	C*	XBOOO
23	74A586303-2343	.	WEB ASSY (76301) (FOR REPAIR	.	SEE WP024 04)				1		XBOOO
24	74A586303-2077	.	PLATE ASSY (76301) (FOR REPAIR	.	SEE WP024 04)				1		XBOOO
25	74A586303-2339	.	WEB ASSY (76301) (FOR REPAIR	.	SEE WP024 04)				1		XBOZZ
26	74A586303-2377	.	RETAINER (FWD) (76301)	.					1		XBOZZ
27	NAS673V6	.	BOLT	.					AR		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 27)	.					AR		PAOZZ
28	NAS673V4	.	BOLT	.					AR		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 28)	.					AR		PAOZZ
29	7M637BT-6D	.	NIPPLE, TUBE (76301)	.					1		PAOZZ
30	74A586313-1001	.	TUBE ASSEMBLY, METAL -	.	VENT, FWD INVERTED FLT				1		MGOZZ
		.	COMPT TK 3 (76301)								
31	NAS673V2	.	BOLT	.					4		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 31)	.					4		PAOZZ
	MS21062L3	.	NUT, PLATE (USE WITH INDEX 31)	.					4		PAOZZ
	MS20426AD3 #	.	RIVET (AP)	.					2		-
32	74A586309-1011	.	BRACKET ASSY (76301)	.					2		XBOOO
33	74A586309-2023	.	BRACKET (76301)	.					1		MGOZZ
34	MS21062L3	.	NUT, PLATE	.					4		PAOZZ
	MS20426AD3 #	.	RIVET (AP)	.					2		-
35	74A586309-2027	.	BRACKET (76301)	.					2		MGOZZ
36	74A586686-1005	.	TUBE ASSEMBLY, METAL -	.	PRESS SNSR, DEFUEL				1		MGOZZ
		.	VALVE, TNK NO. 3 (76301)								
37	7M637BD-6D	.	NIPPLE, TUBE (76301)	.					1		PAOZZ
38	M529512-06	.	PACKING	.					1		PAOZZ
39	7M637BW-6D	.	ELBOW, TUBE (76301)	.					1		PAOZZ
40	741100-103A	.	VALVE, FLOAT, AIRCRAFT - FUEL	.	TANK, DEFUELING (DEFUEL				1		PAOZZ
		.	VALVE) (96124) (MCDONNELL SPEC		74-580111-103) (5VAP521) (REPLACES						
		.	741100-103 AND 741100-101)								
	741100-103	.	SEE ABOVE (USE UNTIL EXHAUSTED)	.					1	*	PAOZZ
	741100-101	.	SEE ABOVE (MCDONNELL SPEC	.	74-580111-101) (USE UNTIL				1	*	PAOZZ
		.	EXHAUSTED)								

Figure 1. Defuel Valve (5VAP521) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

41	NAS674V2	.	BOLT	.....					4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 41)	.....					4		PAOZZ

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	74A586303-1011 (DOUBLE HINGE)	F/A-18A/B
B	74A586303-1011 (SINGLE HINGE)	F/A-18A/B
C	74A586303-1007 (NO HINGE)	F/A-18A/B

Figure 1. Defuel Valve (5VAP521) (Sheet 7)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

DEFUEL VALVE (5VAP521)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161716 THRU 161761 BEFORE F18 AFC 018 AND F18 AFC 053

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 IAFC 034	6 Oct 83	Fuel System, Defuel Tube Assy Flange, Modification of (ECP-MDA-F18-00055C1)	1 Oct 83	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing (7)	MS29513-226
Packing (6)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Remove no. 3 fuel tank access cover (WP006 00) and do general preparation for removal (WP013 00).

b. Remove coupling (3, figure 1, detail A), packings (2), tube (1), and no. 3 fuel tank dive vent check valve.

c. Remove probe guide (5, detail B), bolts (4) and attaching parts.

d. Remove tube (17, detail C).

e. Remove couplings (7), packings (6) and tube (8).

f. Disconnect tube (13) and clamp (18, detail E).

g. Remove coupling (14, detail C), clamp (10), manifold (9), packings (6) and attaching parts.

h. Remove panel (20, detail D) with valve (26).

i. Disconnect elbow (23).

j. Remove valve (26), bolts (29), and attaching parts from tube (27).

k. On 161716 THRU 161748, AND 161750 THRU 161761 AFTER F18 IAFC 034, remove stiffeners (28).

l. Remove nipple (24) and packing (25) from valve (26) and packing (6) from tube (27).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

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b. Lubricate new packings with petrolatum.

c. Install packing (25, figure 1, detail D) and nipple (24) on valve (26) and packings (6) on tube (27).

d. Prepare mating surfaces of valve (26), tube (27), and attaching parts for electrical bonding (A1-F18AC-LMM-000).

e. On 161749; ALSO 161716 THRU 161748, AND 161750 THRU 161761 AFTER F18 IAFC 034, position stiffeners (28).

f. Position valve (26), install bolts (29) and attaching parts.

g. Connect elbow (23).

h. Inspect for and remove foreign objects from below baffle area. (QA)

i. Carefully position panel (20) with valve (26) assembly and install attaching parts.

j. Prepare mating surfaces of manifold (9, detail C), attaching parts, and baffle for electrical bonding (A1-F18AC-LMM-000).

k. Position manifold (9) and install packings (6), coupling (14), clamp (10), bolts (11), and attaching parts.

l. Connect tube (13) and clamp (18, detail E) to bracket (19) with attaching parts.

m. Install packings (6), tube (8), and couplings (7).

n. Install tube (17).

o. Install probe guide (5, detail B), bolts (4), and attaching parts.

p. Install no. 3 fuel tank dive vent check valve, packings (2), and couplings (3).

q. Install packings (2, detail A), tube (1), and coupling (3).

r. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

s. Install access cover (WP006 00).

t. Connect utility and emergency battery connectors (WP013 00).

u. Test defuel valve by refueling aircraft to 500 pounds, then defuel (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

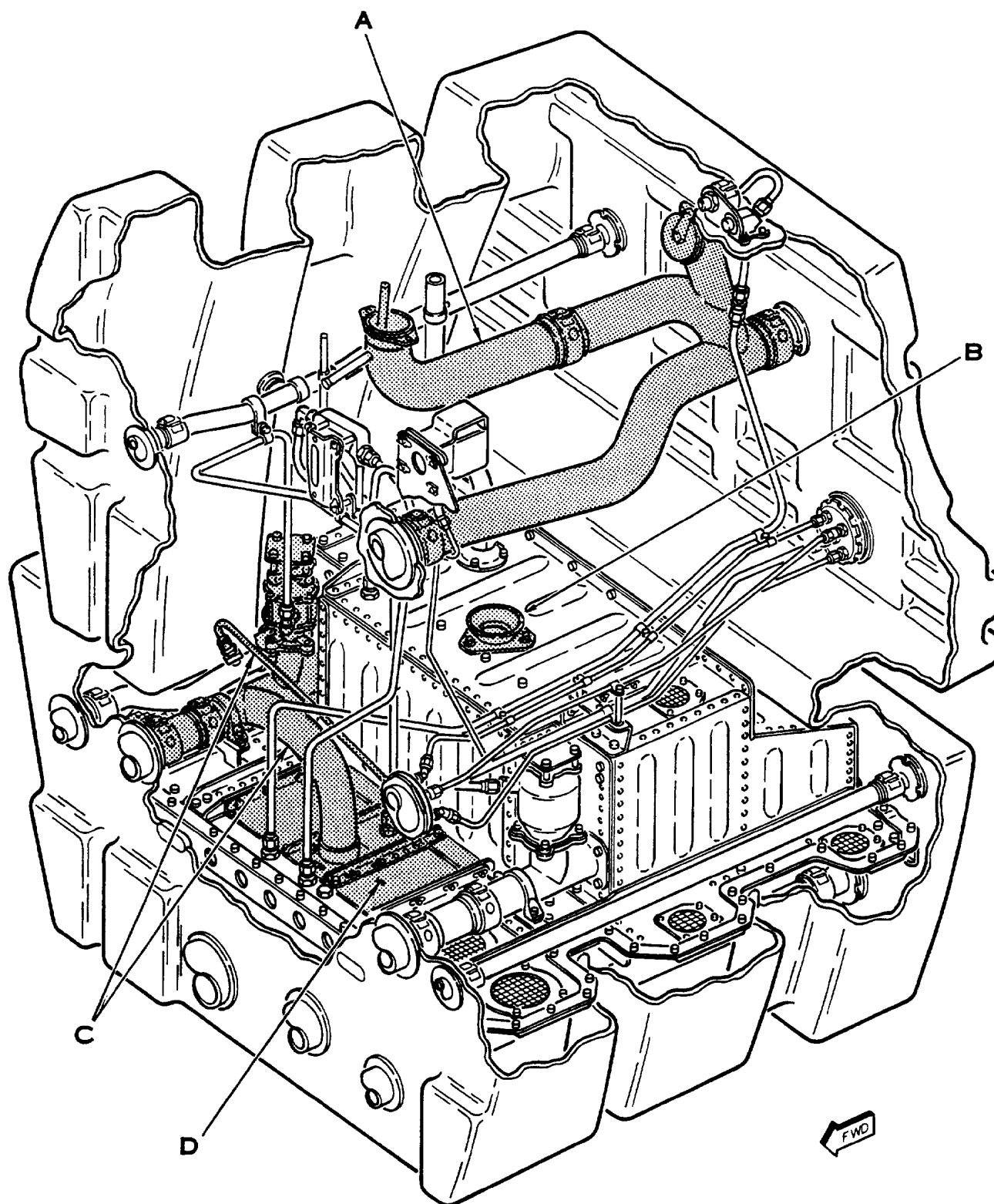


Figure 1. Defuel Valve (5VAP521) (Sheet 1)

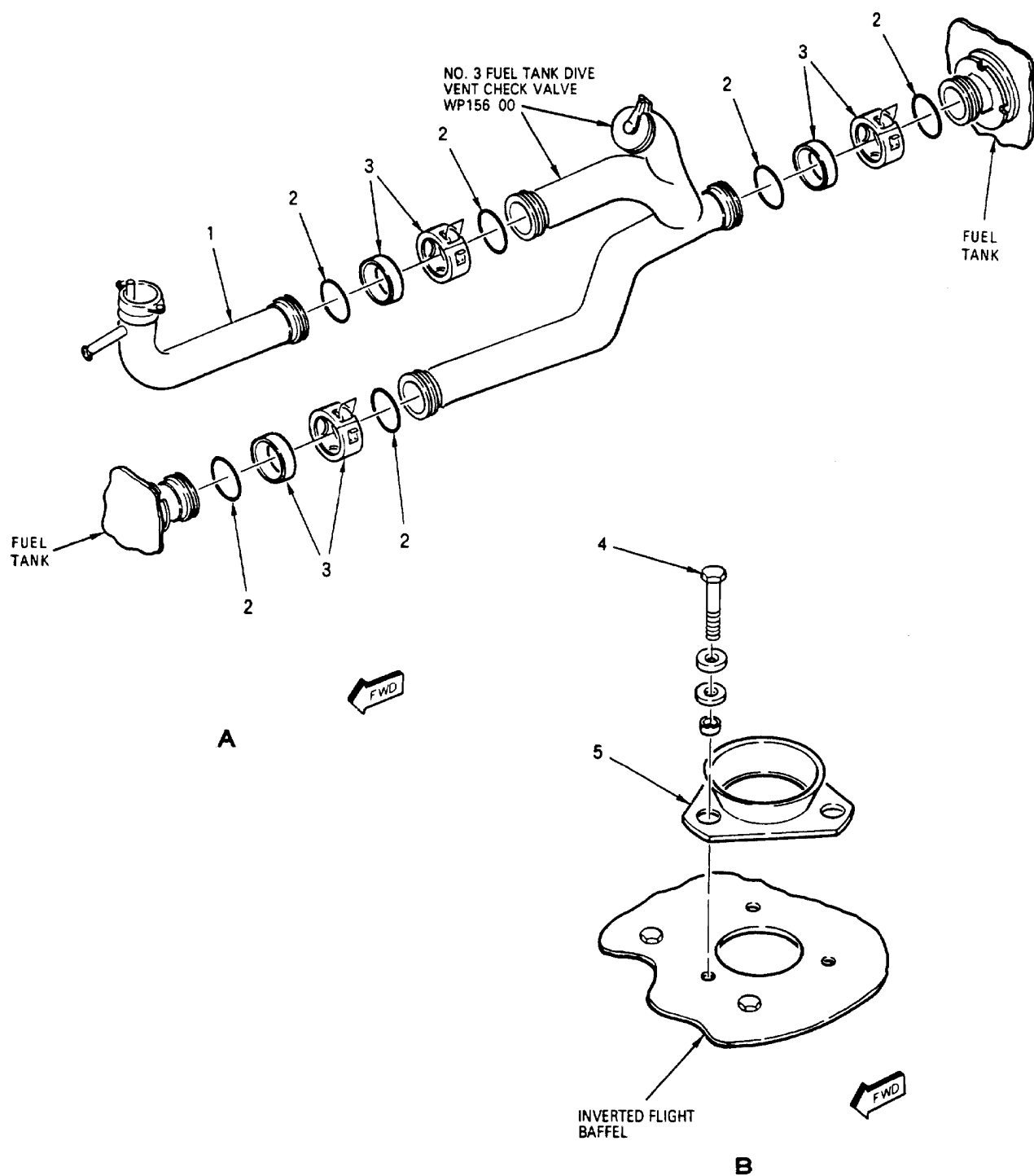


Figure 1. Defuel Valve (5VAP521) (Sheet 2)

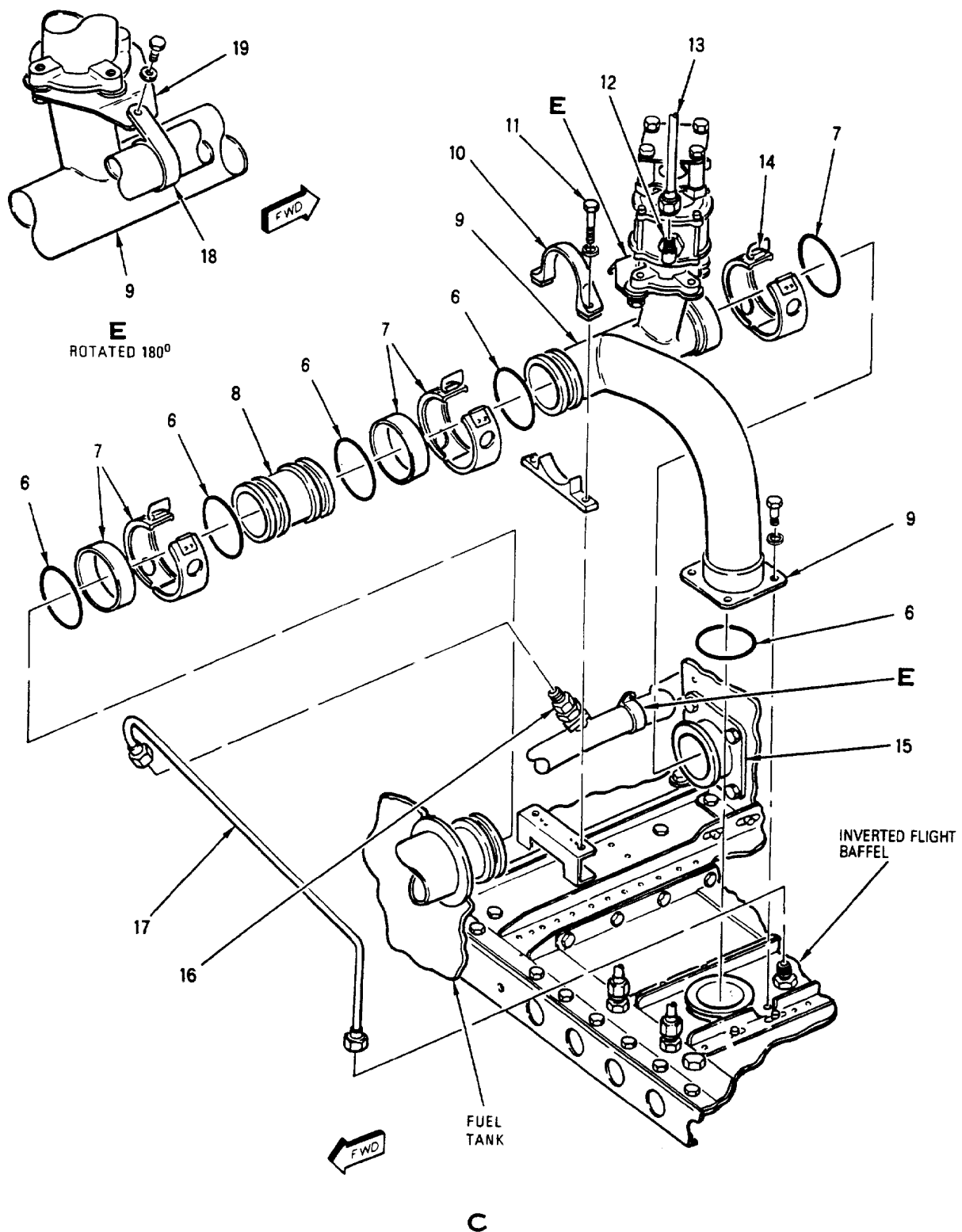


Figure 1. Defuel Valve (5VAP521) (Sheet 3)

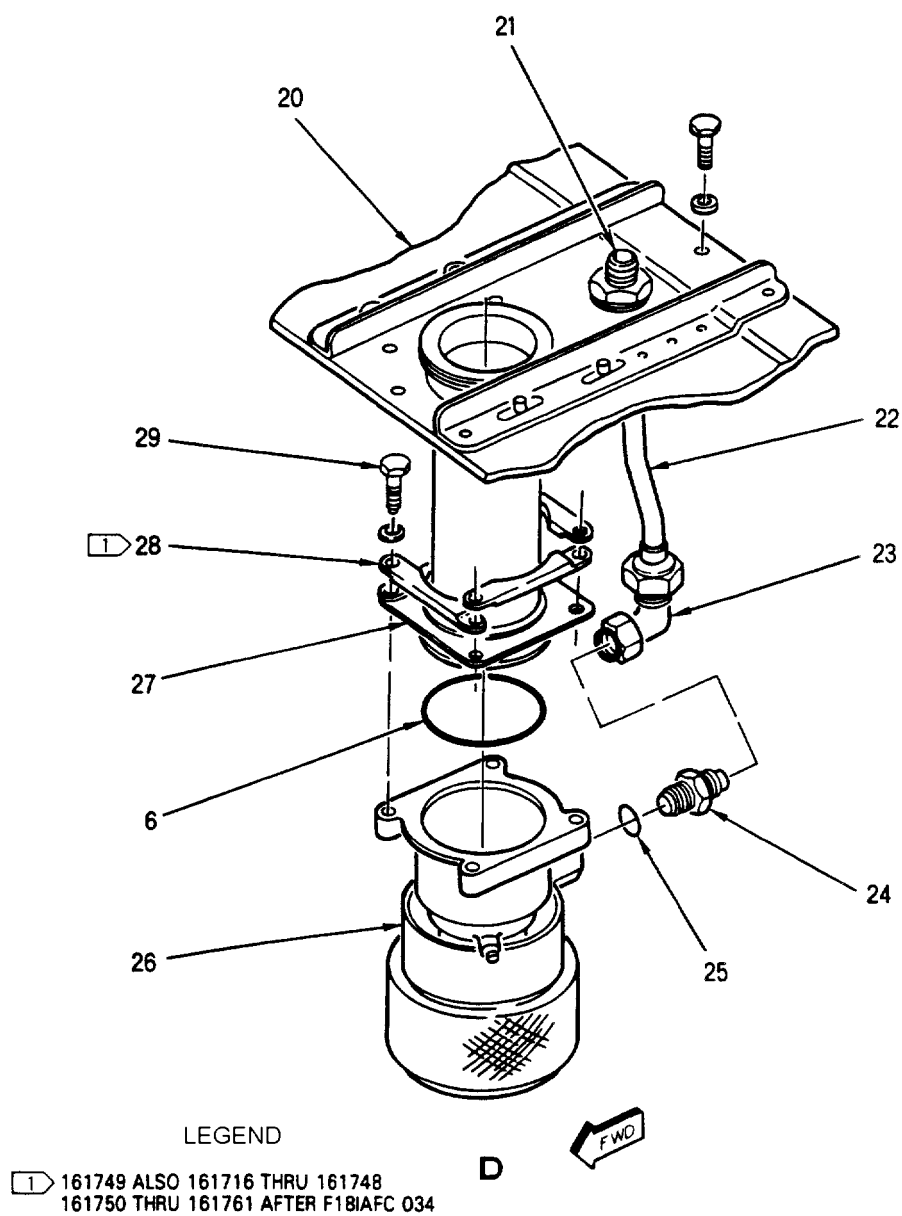


Figure 1. Defuel Valve (5VAP521) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		DEFUEL VALVE (5VAP521)									
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT, FUEL	.					1		XBOOO
			TANK NO. 3 (76301)	.							
	NS103597-02	.	NUT, SELF-LOCKING, PLATE (80539)	.					2	*	PAOZZ
			(MCDONNELL SPEC ST3M470C3M)	.							
			(USE WITH INDEX 1)	.							
	F10965-1-3	.	SEE ABOVE (72962)	.					2	*	PAOZZ
	F29339-01-3	.	SEE ABOVE (15653)	.					2	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)	.					2		-
2	MS29513-230	.	PACKING	.					6		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED	.					3		PAOZZ
			(24984) (MCDONNELL SPEC	.							
			7M765-40D) (INCLUDES SLEEVE)	.							
	14J12-40A	.	SEE ABOVE (24984)	.					3		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL	.					3	*	PAOZZ
			SPEC 7M550-40D) (INCLUDES SLEEVE)	.							
4	NAS673V4	.	BOLT	.					3		PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH INDEX 4)	.					6		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 4)	.					3		PAOZZ
5	74A586297-2001	.	GUIDE PROBE - FUEL QTY, TANK	.					1		XBOZZ
			2 & 3 (76301)	.							
6	MS29513-226	.	PACKING	.					7		PAOZZ
7	W901K32DE	.	COUPLING, CLAMP, GROOVED	.					2		PAOZZ
			(79326) (MCDONNELL SPEC	.							
			7M765-32D) (INCLUDES SLEEVE)	.							
	14J12-32A	.	SEE ABOVE (24984)	.					2		PAOZZ
	W901F32DE	.	SEE ABOVE (79326) (MCDONNELL	.					3	*	PAOZZ
			SPEC 7M550-32D) (INCLUDES	.							
			SLEEVE)	.							
8	74A586216-1005	.	TUBE ASSEMBLY, METAL - REFUEL,	.					1		XBOZZ
			TANK NO. 2 (76301)	.							
9	74A586317-1005	.	MANIFOLD, FUEL, AIRCRAFT -	.					1		XBOZZ
			FUEL TANK NO. 3 (76301)	.							
			(SUPERSEDES 74A586317-1001)	.							
	NAS673V2	.	BOLT (AP)	.					4		PAOZZ
	AN960JD10L	.	WASHER (AP)	.					4		PAOZZ
10	NAS1787A32G	.	CLAMP	.					1		PAOZZ
11	NAS673V9	.	BOLT (AP)	.					2		PAOZZ
	AN960JD10L	.	WASHER (AP)	.					2		PAOZZ
12	7M637BW-6D	.	ELBOW, TUBE (76301)	.					1		XBOZZ
13	74A586341-1015	.	TUBE ASSEMBLY, METAL -	.					1		MGOZZ
			PILOT VALVE RH PORT TO	.							
			REFUEL V (76301) (SUPERSEDES	.							
			74A586341-1007 AND 74A586341-1011)	.							
14	W904K32DE	.	COUPLING, CLAMP, GROOVED	.					1		PAOZZ
			(HALF) (79326) (MCDONNELL	.							
			SPEC 7M765-32D1)	.							
	14C12-32A	.	SEE ABOVE (24984)	.					1		PAOZZ
	W904F32DE	.	SEE ABOVE (HALF) (79326)	.					1	*	PAOZZ
			(MCDONNELL SPEC 7M550-32D1)	.							
15	74A586248-2001	.	CONNECTOR, FLANGE (FITTING)	.					1		XBOZZ
			(76301)	.							
16	7M637BD-6D	.	NIPPLE, TUBE (76301)	.					1		PAOZZ
	MS29512-06	.	PACKING (USE WITH INDEX 16)	.					1		PAOZZ

Figure 1. Defuel Valve (5VAP521) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
17	74A586669-1017	.	TUBE ASSEMBLY, METAL - PRESS	.....					1		MGOZZ
			SENR TO DEFUEL LINE, TK 3								
			(76301) (SUPERSEDES								
			74A586669-1013)								
18	MS25281-R20	.	CLAMP	.....					1		PAOZZ
	NAS673V3	.	BOLT (AP)	.....					1		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					1		PAOZZ
19	74A586323-1035	.	BRACKET ASSY (76301)	.....					1		XBOZZ
	MS21060L3	.	NUT, PLATE (USE WITH INDEX 19)	.....					1		PAOZZ
	NAS1079AD3 #	.	RIVET (AP)	.....					2		-
20	74A586315-2013	.	PANEL ASSY FRONT (76301)	.....					1		XBOOO
			(FOR REPAIR SEE WP024 05)								
	NAS673V4	.	BOLT (AP)	.....					AR		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					AR		PAOZZ
21	7M637BT-6D	.	NIPPLE, TUBE (76301)	.....					1	A	PAOZZ
	7M637BY-6D	.	ELBOW (76301)	.....					1	B	PAOZZ
	AN960JD916L	.	WASHER (AP)	.....					1		PAOZZ
	AN924-6D	.	NUT (AP)	.....					1		PAOZZ
22	74A586502-1001	.	TUBE ASSEMBLY, METAL - PRESS	.....					1	A	MGOZZ
			SNSR, DEFUEL VALVE, TK								
			NO. 3 (76301)								
	74A586502-1005	.	TUBE ASSEMBLY, METAL - PRESS	.....					1	B	MGOZZ
			SNSR, DEFUEL VALVE,								
			TK NO. 3 (76301) (SUPERSEDES								
			74A586502-1003)								
23	7M148V6	.	ELBOW (76301)	.....					1		PAOZZ
24	7M637BD-6D	.	NIPPLE, TUBE (76301)	.....					1		PAOZZ
25	MS29512-06	.	PACKING	.....					1		PAOZZ
26	741100-103A	.	VALVE, FLOAT, AIRCRAFT - FUEL	.....					1		PAOZZ
			TANK, DEFUELING (DEFUEL								
			VALVE) (96124) (MCDONNELL								
			SPEC 74-580111-103) (5VAP521)								
			(REPLACES 741100-103A AND								
			741100-101)								
	741100-103	.	SEE ABOVE (USE UNTIL EXHAUSTED)	.....					1	*	PAOZZ
	741100-101	.	SEE ABOVE (MCDONNELL SPEC	.....					1	*	PAOZZ
			74-580111-101) (USE UNTIL								
			EXHAUSTED)								
27	74A586327-1017	.	TUBE ASSEMBLY, METAL -	.....					1		XBOOO
			DEFUEL, TANK NO. 3 (76301)								
	74A586327-1013 @	.	SEE ABOVE	.....					1	*	XBOOO
	F50339-3-4	.	NUT, SELF-LOCKING, PLATE	.....					4	*	PAOZZ
			(15653) (MCDONNELL SPEC								
			ST3M719C3M4) (USE WITH								
			INDEX 27)								
	F12090-4-3	.	SEE ABOVE (72962)	.....					4	*	PAOZZ
	NAS1097AD3 #	.	RIVET (AP)	.....					2		-
28	74A586248-9001 @	.	CONNECTOR, FLANGE (STIFFENER)	.....					4	C	-
			(76301)								
29	NAS674V2	.	BOLT	.....					4	D	PAOZZ
	NAS674V5	.	BOLT	.....					4	C	PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 29)	.....					4		PAOZZ

Figure 1. Defuel Valve (5VAP521) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

@ 74A586327-1013 REQUIRES FOUR
74A586248-9001 STIFFENERS

CODE	USABLE ON	MODEL
A	161716 THRU 161720	F/A-18A/B
B	161721 & UP	F/A-18A/B
C	161749; ALSO 161716 THRU 161748, 161750 THRU 161761 AFTER F18 IAFC 034	F/A-18A/B
D	161716 THRU 161748, 161750 THRU 161761 BEFORE F18 IAFC 034	F/A-18A/B

Figure 1. Defuel Valve (5VAP521) (Sheet 7)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****DEFUEL VALVE (5VAP521)****REFUEL/DEFUEL SYSTEM**

**EFFECTIVITY: 161924 AND UP; ALSO 161353 THRU 161761
AFTER F/A-18 AFC 18 AND F/A-18 AFC 53**

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Illustrated Parts Breakdown	3
Illustration	4
Parts List	8
Installation	2
Materials Required	2
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 IAFC 034	6 Oct 83	Fuel System, Defuel Tube Flange, Modification of (ECP MDA-F/A-18-00055C1)	15 Dec 83	-
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F/A-18-00055C1)	15 Jul 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA- F/A-18-00077C1/C2)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing (7)	MS29513-226
Packing (6)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Remove no. 3 fuel tank access cover (WP006 00) and do a general preparation for removal (WP013 00).

b. Remove coupling (3, figure 1, detail A), packings (2), and tube (1).

c. Remove no. 3 fuel tank dive vent check valve (4), couplings (3), and packings (2).

d. Remove probe guide (9, detail B), bolts (5, 6, and 7), gasket (8), and attaching parts.

e. Remove tube (20, detail C).

f. Remove couplings (11), packings (10), and tube (12).

g. Disconnect clamp (21, detail E) and remove attaching parts.

h. Remove coupling (17, detail C), clamp (14), manifold (13), packings (10), and attaching parts.

i. Remove panel (23, detail D) with valve (28).

j. Disconnect elbow (25).

k. Remove valve (28) and attaching parts from tube (29).

l. On 161925 THRU 161980; ALSO 161924 AFTER F/A-18 IAFC 034; BEFORE F/A-18 AFC 53 remove stiffeners (30).

m. Remove nipple (26) and packing (27) from valve (28) and packing (10) from tube (29).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. Install packing (27, figure 1, detail D) and nipple (26) on valve (28) and packings (10) on tube (29).

d. Prepare mating surfaces of valve (28), tube (29) and attaching parts for electrical bonding (A1-F18AC-LMM-000).

e. On 161925 THRU 161980; ALSO 161924 AFTER F/A-18 IAFC 034; BEFORE F/A-18 AFC 53 position stiffeners (30).

f. Position valve (28) and install attaching parts.

g. Connect elbow (25).

h. Inspect for and remove foreign objects from below baffle area.

i. Carefully position panel (23) with valve (28) assembly and install attaching parts.

j. Prepare mating surfaces of manifold (13, detail C) attaching parts and baffle for electrical bonding (A1-F18AC-LMM-000).

k. Position manifold (13) and install packings (10), coupling (17), clamp (14) and attaching parts.

l. Connect clamp (21, detail E) to bracket (22) with attaching parts.

m. Install packing (10), tube (12), and couplings (11).

n. Install tube (20).

o. Install probe guide (9, detail B), bolts (5, 6, and 7), gasket (8) and attaching parts.

p. Install no. 3 fuel tank dive vent check valve (4), packings (2) and couplings (3).

q. Install packings (2, detail A), tube (1), and coupling (3).

r. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

s. Install access cover (WP006 00).

t. Connect utility and emergency battery connectors per WP013 00.

u. Test defuel valve by refueling aircraft to 500 pounds then defuel (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

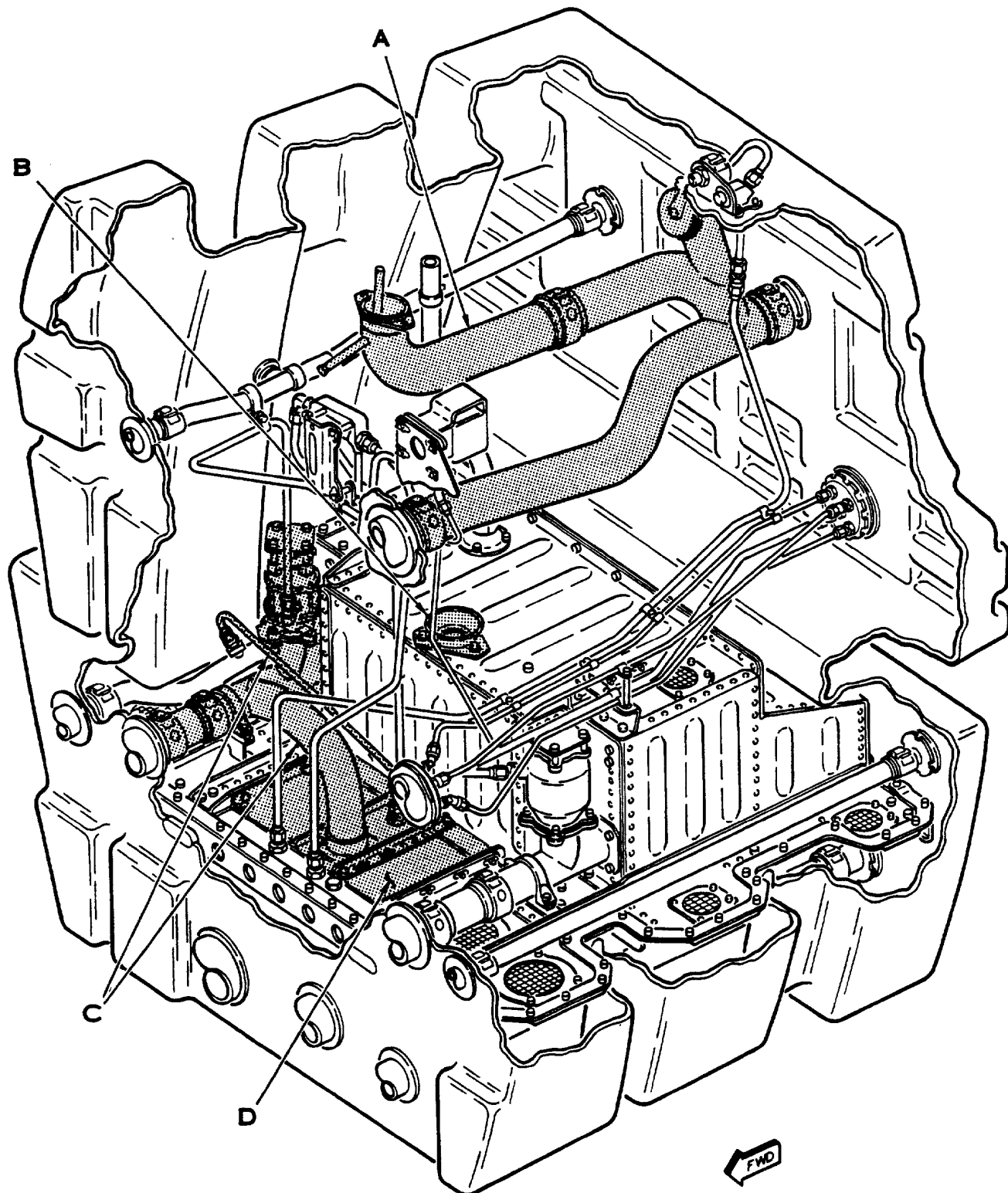


Figure 1. Defuel Valve (5VAP521) (Sheet 1)

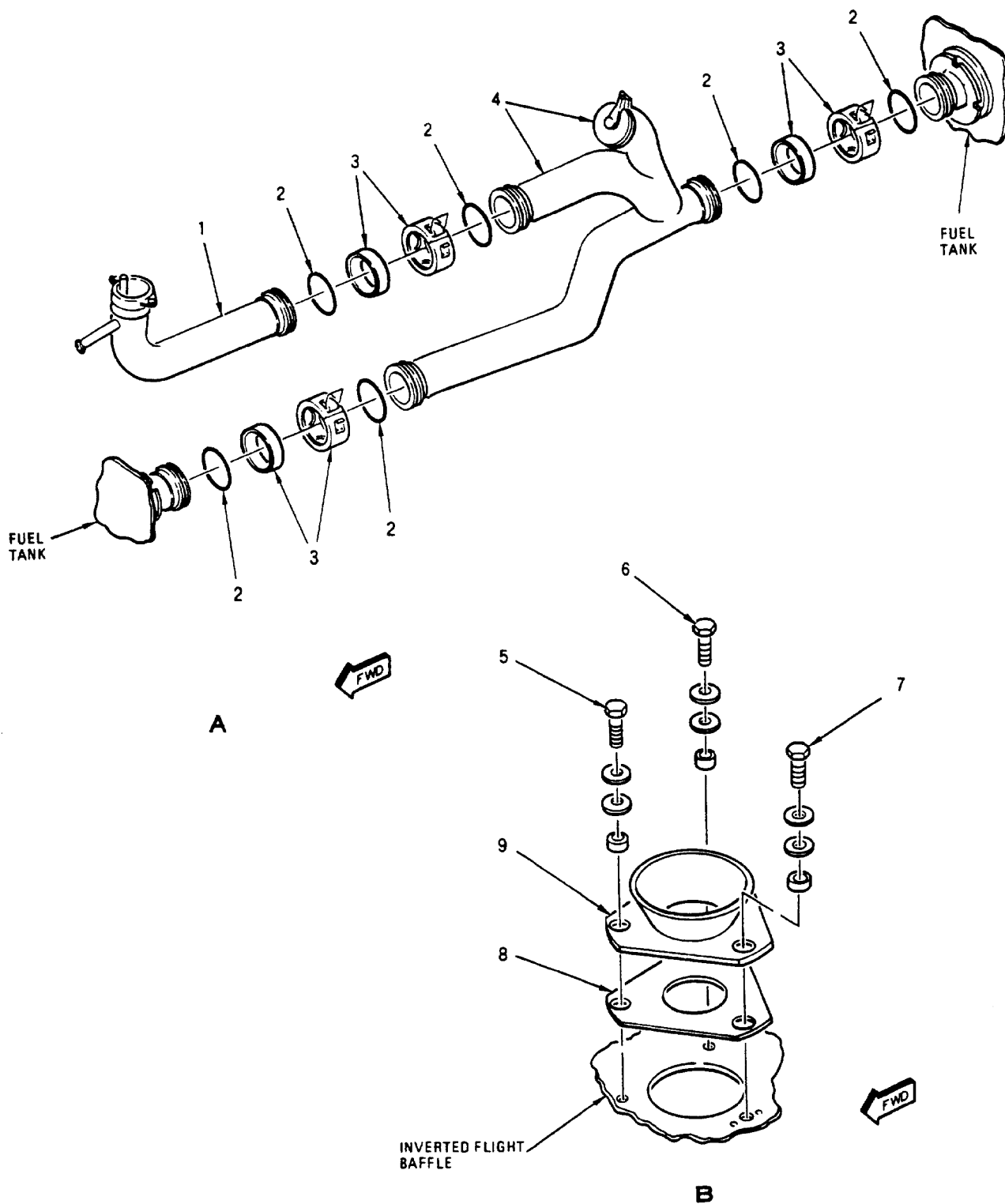


Figure 1. Defuel Valve (5VAP521) (Sheet 2)

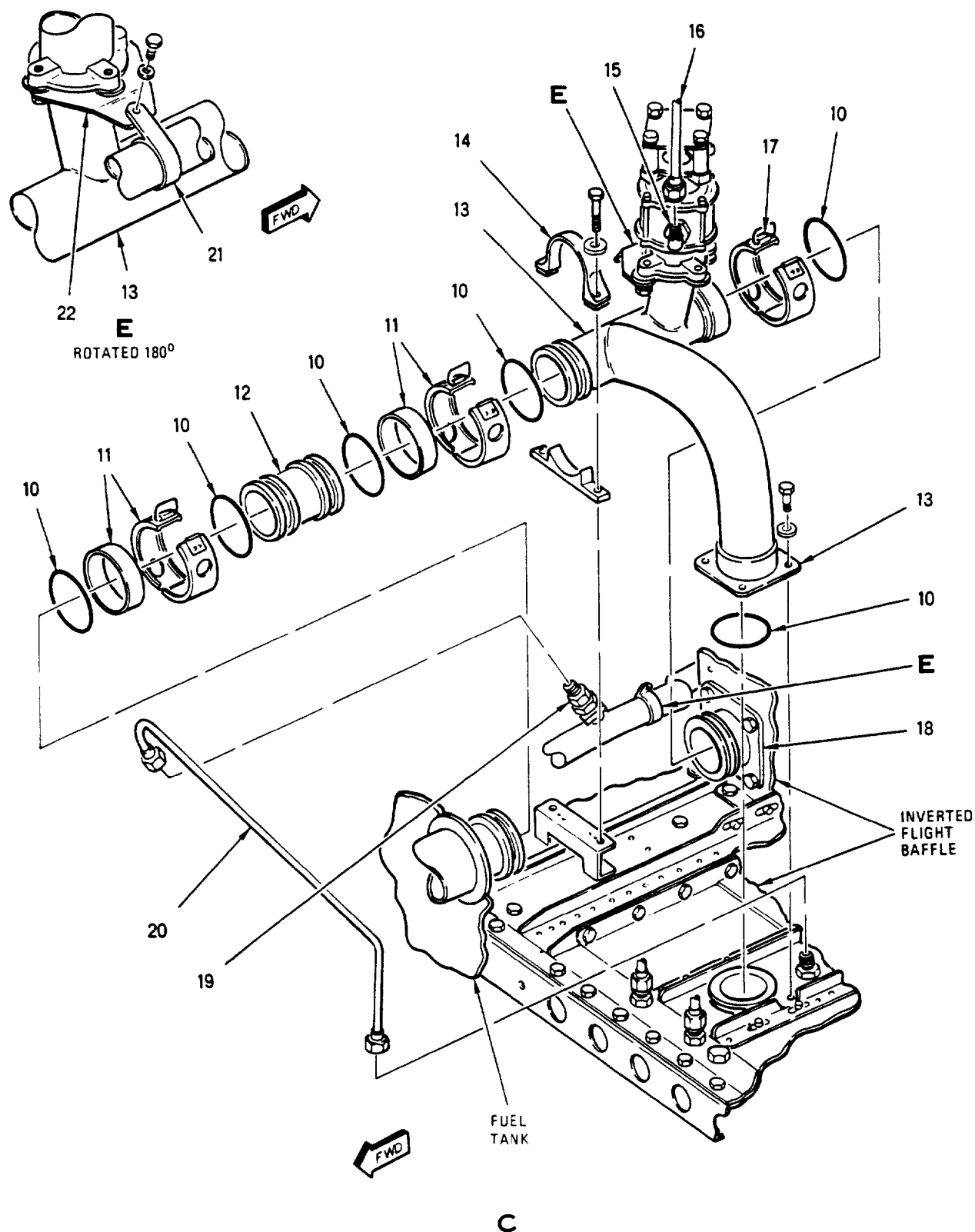


Figure 1. Defuel Valve (5VAP521) (Sheet 3)

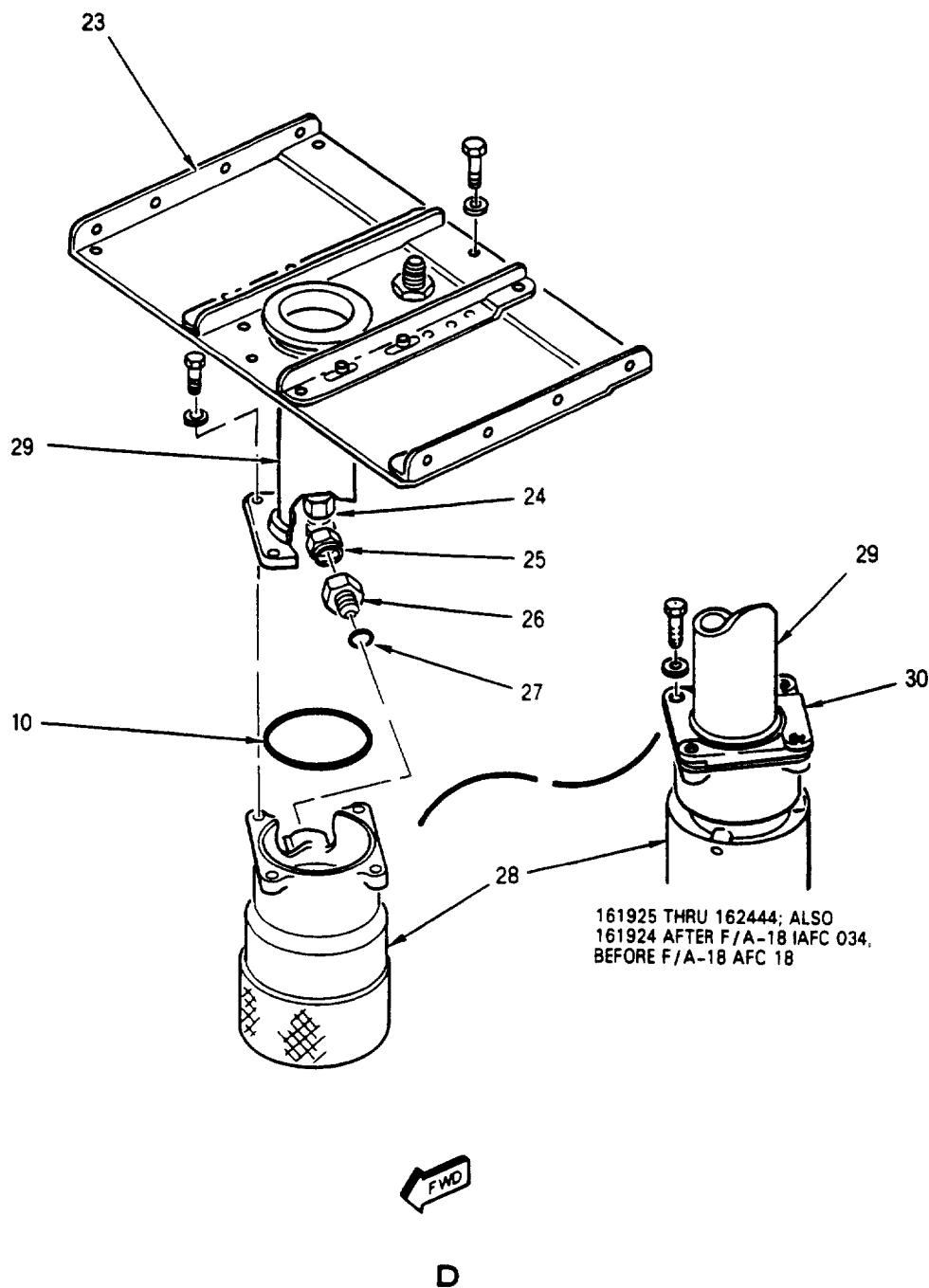


Figure 1. Defuel Valve (5VAP521) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		DEFUEL VALVE (5VAP521)			
1	74A586381-1001	. TUBE ASSY - CLIMB VENT, FUEL	1		XBOOO
		TANK NO. 3 (76301)			
	NS103597-02	. NUT, SELF-LOCKING, PLATE	2	*	PAOZZ
		(80539) (MCDONNELL SPEC			
		ST3M470C3M) (USE WITH INDEX 1)			
	F10965-1-3	. SEE ABOVE (72962)	2	*	PAOZZ
	F29339-01-3	. SEE ABOVE (15653)	2	*	PAOZZ
	MS20426AD3 #	. RIVET (AP)	2		-
2	MS29513-230	. PACKING	6		PAOZZ
3	W901K40DE	. COUPLING, CLAMP, GROOVED	3		PAOZZ
		(79326) (MCDONNELL SPEC			
		7M765-40D) (INCLUDES SLEEVE)			
	14J12-40A	. SEE ABOVE (24984)	3		PAOZZ
	W901F40DE	. SEE ABOVE (79326) (MCDONNELL	3	*	PAOZZ
		SPEC 7M550-40D)			
4	74A586321-1011	. VENT ASSEMBLY, FUEL TANK No. 3	1		PAOZZ
		(NO. 3 FUEL TANK DIVE VENT			
		CHECK VALVE) (76301) (5VAP582)			
	74A585003-2001	. SEE ABOVE	1	*	PAOZZ
	NAS1802-06-7	. SCREW (USE WITH INDEX 4)	2		PAOZZ
	AN960JD6L	. WASHER (USE WITH INDEX 4)	2		PAOZZ
	NAS1291C06M	. NUT (USE WITH INDEX 4)	2		PAOZZ
5	NAS673V6	. BOLT	1		PAOZZ
	4M36-01016	. WASHER (76301) (USE WITH INDEX 5)	2		PAOZZ
	NAS43DD3-8	. SPACER (USE WITH INDEX 5)	1		PAOZZ
6	NAS673V7	. BOLT	1		PAOZZ
	4M36-01016	. WASHER (76301) (USE WITH INDEX 6)	2		PAOZZ
	NAS43DD3-8	. SPACER (USE WITH INDEX 6)	1		PAOZZ
7	NAS673V5	. BOLT	1		PAOZZ
	4M36-01016	. WASHER (76301) (USE WITH INDEX 7)	2		PAOZZ
	NAS43DD3-8	. SPACER (USE WITH INDEX 7)	1		PAOZZ
8	74A586556-2001	. GASKET, PROBE GUIDE - RAISED	1		MDOZZ
		INVERTED BAFFLE TK. 2 &			
		TK. 3 (76301)			
9	74A586297-2001	. GUIDE PROBE - FUEL QTY.	1		XBOZZ
		TANK 2 & 3 (PROBE GUIDE) (76301)			
10	MS29513-226	. PACKING	7		PAOZZ
11	W901K32DE	. COUPLING, CLAMP, GROOVED	2		PAOZZ
		(79326) (MCDONNELL SPEC			
		7M765-32D) (INCLUDES SLEEVE)			
	14J12-32A	. SEE ABOVE (24984)	2		PAOZZ
	W901F32DE	. SEE ABOVE (79326) (MCDONNELL	2	*	PAOZZ
		SPEC 7M550-32D)			
12	74A586216-1005	. TUBE ASSEMBLY, METAL -	1		XBOZZ
		REFUEL TANK NO. 2 (76301)			
13	74A586317-1005	. MANIFOLD, FUEL, AIRCRAFT -	1		XBOZZ
		FUEL TANK NO. 3 (76301)			
		(SUPERSEDES 74A586317-1001)			
	NAS673V2	. BOLT (AP)	4		PAOZZ
	AN960JD10L	. WASHER (AP)	4		PAOZZ
14	NAS1787A32G	. CLAMP	1		PAOZZ
	NAS673V9	. BOLT (AP)	2		PAOZZ

Figure 1. Defuel Valve (5VAP521) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
	AN960JD10L	.	WASHER (AP)					2		PAOZZ
15	7M637BW-6D	.	ELBOW, TUBE (76301)					1		XBOZZ
16	74A586341-1015	.	TUBE ASSEMBLY, METAL -					1		MGOZZ
			PILOT VALVE RH PORT TO REFUEL V (76301) (SUPERSEDES 74A586341-1007 AND 74A586341-1011)							
17	W904K32DE	.	COUPLING, CLAMP, GROOVED					1		PAOZZ
			(HALF) (79326) (MCDONNELL SPEC 7M765-32D1)							
	14C12-32A	.	SEE ABOVE (24984)					1		PAOZZ
	W904F32DE	.	SEE ABOVE (79326) (MCDONNELL SPEC 7M550-32D1)					1	*	PAOZZ
18	74A586248-2001	.	CONNECTOR, FLANGE					1		XBOZZ
			(FITTING) (76301)							
19	7M637BD-6D	.	NIPPLE (76301)					1		PAOZZ
	MS29512-06	.	PACKING (USE WITH INDEX 19)					1		PAOZZ
20	74A586669-1017	.	TUBE ASSEMBLY, METAL -					1		MGOZZ
			PRESS SENR TO DEFUEL LINE, TK 3 (76301) (SUPERSEDES 74A586669-1013)							
21	MS25281-R20	.	CLAMP					1		PAOZZ
	NAS673V3	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
22	74A586323-1035	.	BRACKET ASSY (76301)					1		XBOZZ
	MS21060L3	.	NUT, PLATE (USE WITH INDEX 22)					1		PAOZZ
	NAS1079AD3 #	.	RIVET (AP)					2		-
23	74A586315-2013	.	PANEL ASSY, FRONT (76301)					1	C	XBOOO
			(FOR REPAIR SEE WP024 05)							
	74A586315-2023 + +	.	SEE ABOVE					1	B	XBOOO
	NAS673V4	.	BOLT (AP)					AR		PAOZZ
	AN960JD10L	.	WASHER (AP)					AR		PAOZZ
24	74A587124-1009	.	TUBE ASSEMBLY, METAL -					1		MGOZZ
			PRESS SNSR, DEFUEL VALVE TK NO. 3 (76301) (SUPERSEDES 74A587124-1001 74A587124-1003 74A587124-1005 AND 74A587124-1007)							
25	7M148V6	.	ELBOW (76301)					1		PAOZZ
26	7M637BD-6D	.	NIPPLE (76301)					1		PAOZZ
27	MS29512-06	.	PACKING					1		PAOZZ
28	741100-103A	.	VALVE, FLOAT, AIRCRAFT -					1		PAOZZ
			FUEL TANK, DEFUELING (DEFUEL VALVE) (96124) (MCDONNELL SPEC 74-580111-103) (5VAP521)							
	741100-103	.	VALVE, FLOAT, AIRCRAFT -					1	*	PAOZZ
			FUEL TANK, DEFUELING (DEFUEL VALVE) (96124) (MCDONNELL SPEC 74-580111-103) (5VAP521)							
	741100-101	.	SEE ABOVE (MCDONNELL SPEC 74-580111-101)					1	*	PAOZZ
	NAS674V5	.	BOLT (AP)					4		PAOZZ
	AN960JD416L	.	WASHER (AP)					4		PAOZZ
29	74A586327-1025 + +	.	TUBE ASSEMBLY - METAL -					1	B	XBOOO
			DEFUEL, TANK NO. 3 (76301)							
	74A586327-1023	.	SEE ABOVE					1	C	XBOOO
	74A586327-1015 @	.	SEE ABOVE					1	C*	XBOOO
	NAS673V4	.	BOLT (AP)					4		PAOZZ

Figure 1. Defuel Valve (5VAP521) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
	AN960JD10	.	WASHER (AP)	.....				4		PAOZZ
	74A586309-3121	.	WASHER (USE WITH 74A586327-1023)	.....				4	C	PAOZZ
	F50339-3-4	.	NUT, SELF-LOCKING, PLATE	.....				4	*	PAOZZ
			(15653) (MCDONNELL SPEC							
			ST3M719C3M4) (USE WITH							
			INDEX 29)							
	F12090-4-3	.	SEE ABOVE (72962)	.....				4	*	PAOZZ
	NAS1097AD3 #	.	RIVET (AP)	.....				2		-
30	74A586248-9001 @	.	CONNECTOR, FLANGE	.....				4	A	-
			(STIFFENER)(76301)							

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

@ 74A586327-1015 TUBE REQUIRES FOUR
74A586248-9001 STIFFENERS

+ + MUST BE USED TOGETHER, FOR
ASSEMBLY SEE WP024 02 OR
WP024 06

CODE	USABLE ON	MODEL
A	161925 THRU 161980; ALSO 161924 AFTER F/A-18 IAFC 034	F/A-18A/B
B	163118 & UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B
C	161924 THRU 163117 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B

Figure 1. Defuel Valve (5VAP521) (Sheet 7)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

No. 1 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE AND HIGH LEVEL PILOT VALVE
(5VAP541 AND 5VAP539)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover (F/A-18A)	WP003 00
No. 1 Fuel Tank Access Cover (F/A-18B)	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect tube (8, figure 1, detail A) from nipple (7).
- c. Loosen bolts (11).
- d. Remove attaching parts and clamp (3).
- e. Remove shutoff valve (5) and attaching parts.
- f. Remove restrictor (9) and attaching parts.
- g. Remove nipple (7) from shutoff valve (5).

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-04
Packing (2)	MS29512-06
Packing	MS29513-224
Packing	M25988-1-315
Petrolatum, Technical	VV-P-236 (CAGE 81348)

h. On F/A-18A, do substeps below:

- (1) Disconnect tubes (15 and 16, detail B) from nipples (14 and 17).
- (2) Remove attaching parts and pilot valve (12).
- (3) Remove nipples (14 and 17) from pilot valve (12).

i. On F/A-18B, do substeps below:

- (1) Disconnect tubes (22 and 23, detail B) from nipples (21 and 24).
- (2) Remove attaching parts and pilot valve (12).
- (3) Remove nipples (21 and 24) from pilot valve (12).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

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b. Lubricate new packings with petrolatum before installation.

c. Install packing (6, figure 1, detail A) on nipple (7) and install nipple in shutoff valve (5).

d. Attach restrictor (9) to shutoff valve (5) with attaching parts.

e. Prepare mating surfaces of shutoff valve (5) and tube (2) for electrical bonding (A1-F18AC-LMM-000).

f. Install packing (4), shutoff valve and attaching parts.

g. Install clamp (3) and attaching parts.

h. Tighten bolts (11).

i. Connect tube (8) to nipple (7).

j. On F/A-18A, do substeps below:

- (1) Install packings (18 and 13, detail B) on nipples (14 and 17).
- (2) Install nipples (14 and 17) in pilot valve (12).
- (3) Prepare mating surfaces of pilot valve (12) and support (19) for electrical bonding (A1-F18AC-LMM-000).
- (4) Install pilot valve (12) with attaching parts.
- (5) Connect tubes (15 and 16) to nipples (14 and 17).

k. On F/A-18B, do substeps below:

- (1) Install packing (20 and 25, detail B) on nipples (21 and 24).
- (2) Install nipples (21 and 24) in valve (12).
- (3) Prepare mating surfaces of bracket (26) and valve (12) for electrical bonding (A1-F18AC-LMM-000).
- (4) Install pilot valve (12) with attaching parts.
- (5) Connect tubes (22 and 23) to nipples (21 and 24).

l. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

m. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).

n. Connect utility and emergency battery connectors (WP013 00).

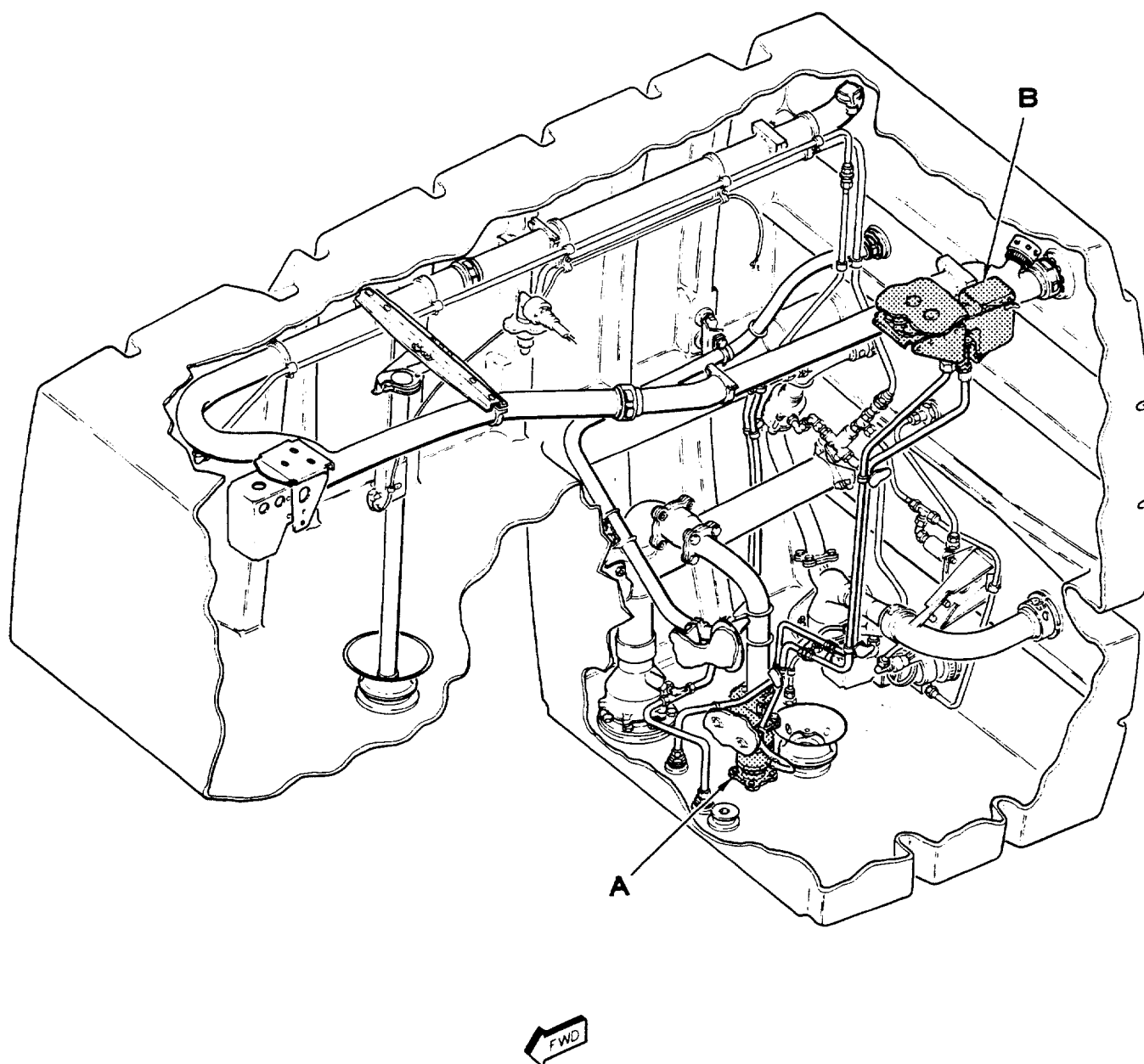
o. Refuel aircraft using electrical power (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

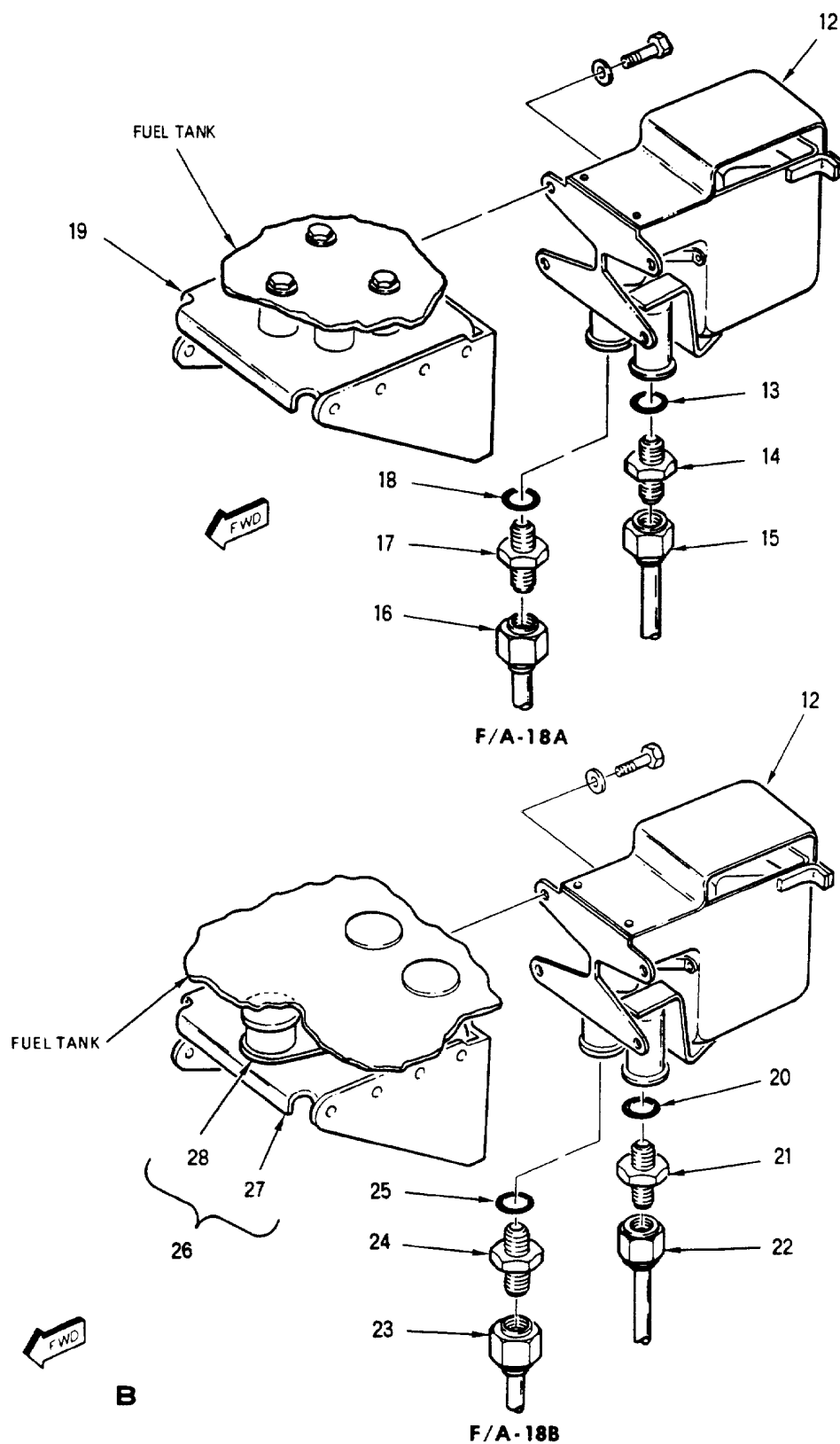
LEGEND

F/A-18A SHOWN, F/A-18B SIMILAR



05700101

Figure 1. No. 1 Fuel Tank Fuel Level Control Shutoff Valve (5VAP541) and High Level Pilot Valve (5VAP539) (Sheet 1)



05700103

Figure 1. No. 1 Fuel Tank Fuel Level Control Shutoff Valve (5VAP541) and High Level Pilot Valve (5VAP539) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 1 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE (5VAP541) AND HIGH LEVEL PILOT VALVE (5VAP539)								
1	74A581023-1005	.	SUPPORT - TUBE ASSY, REFUEL					1		XBOOO
			FILL, TANK NO 1, Y357.5 (76301) (FOR REPAIR SEE WP016 02)							
2	74A581004-1003	.	TUBE ASSEMBLY - REFUEL FILL,					1		XBOZZ
			TANK NO. 1 (76301) (SUPERSEDES 74A581004-1001)							
3	NAS1787A24G	.	CLAMP					1		XBOZZ
	NAS673V2	.	BOLT (AP)					2		PAOZZ
	AN960JD10L	.	WASHER (AP)					2		PAOZZ
4	MS29513-224	.	PACKING					1		PAOZZ
5	2760113-113	.	VALVE, CHECK - REFUEL LEVEL					1		PAOZZ
			(NO. 1 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580108-223) (5VAP541) (REPLACES 2760113-111, 2760113-109 AND 2760113-107)							
	2760113-111	.	SEE ABOVE (MCDONNELL SPEC					1	*	PAOZZ
			74-580108-217) (USE UNTIL EXHAUSTED)							
	2760113-109	.	SEE ABOVE (MCDONNELL SPEC					1	*	PAOZZ
			74-580108-215) (USE UNTIL EXHAUSTED)							
	2760113-107	.	SEE ABOVE (MCDONNELL SPEC					1	*	PAOZZ
			74-580108-201) (USE UNTIL EXHAUSTED)							
	NAS674V8	.	BOLT (AP)					4		PAOZZ
	AN960JD416	.	WASHER (AP)					4		PAOZZ
6	MS29512-06	.	PACKING					1		PAOZZ
7	7M637BD-6D	.	NIPPLE (76301)					1		PAOZZ
8	74A582026-1001	.	TUBE ASSEMBLY, METAL -					1	A	MGOZZ
			PRESSURE SENSING, Y359.389 (76301)							
	74A582137-1001	.	SEE ABOVE					1	B	MGOZZ
9	74A581029-2001	.	RESTRICTOR, FLUID FLOW -					1		MGOZZ
			PRESSURE FUELING LINE (76301) (5RAP661)							
	NAS674V3	.	BOLT (AP)					4		PAOZZ
	AN960JD416	.	WASHER (AP)					4		PAOZZ
10	74A581024-2003	.	BRACKET, DOUBLE ANGLE -					1		MGOZZ
			TUBE ASSY, REFUEL FILL, Y357.5 (76301)							
	A11144-7-3	.	NUT, CLIP (72962) (MCDONNELL					2	*	PAOZZ
			SPEC ST3M523C3M) (USE WITH INDEX 10)							
	130091	.	SEE ABOVE (76530)					2	*	PAOZZ
11	NAS674V3	.	BOLT					2		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 11)					2		PAOZZ
	NAS1291C4M	.	NUT (USE WITH INDEX 11)					2		PAOZZ

Figure 1. No. 1 Fuel Tank Fuel Level Control Shutoff Valve (5VAP541) and High Level Pilot Valve (5VAP539) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
12	2800095-101	.	VALVE, CONTROL - REFUEL LEVEL						1		PAOZZ
			(NO. 1 FUEL TANK HIGH LEVEL PILOT VALVE) (92003) (MCDONNELL SPEC 74-580108-221) (5VAP539) (REPLACES 2800018-101)								
	2800018-101	.	SEE ABOVE (MCDONNELL SPEC 74-580108-211) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
	NAS674V2	.	BOLT (AP)						4		PAOZZ
	AN960JD416	.	WASHER (AP)						4		PAOZZ
13	MS29512-04	.	PACKING						1	A	PAOZZ
14	7M637BD-4D	.	NIPPLE (76301)						1	A	PAOZZ
15	74A582038-1001	.	TUBE ASSEMBLY, METAL - PRECHECK, Y360.740 (76301)						1	A	MGOZZ
16	74A582035-1001	.	TUBE ASSEMBLY, METAL - PRESSURE SENSING, Y359.400 (76301)						1	A	MGOZZ
17	7M637BD-6D	.	NIPPLE (76301)						1	A	PAOZZ
18	MS29512-06	.	PACKING						1	A	PAOZZ
19	74A582088-1003	.	SUPPORT - VALVE, HIGH LEVEL SHUT-OFF, TANK NO. 1, F-18A (76301)						1	A	XBOOO
	NAS673V3	.	BOLT (AP) (3 OUTSIDE TANK, 3 INSIDE TANK)						6		PAOZZ
	AN960JD416	.	WASHER (AP)						6		PAOZZ
	74A582088-2003	.	SUPPORT (76301) (USE WITH INDEX 19)						1	A	MGOZZ
	MS21060L4	.	NUT, PLATE (USE WITH INDEX 19)						4		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
20	MS29512-04	.	PACKING						1	B	PAOZZ
21	7M637BD-4D	.	NIPPLE (76301)						1	B	PAOZZ
22	74A582135-1001	.	TUBE ASSEMBLY, METAL - PRECHECK, Y360.072 (76301)						1	B	MGOZZ
23	74A582134-1001	.	TUBE ASSEMBLY, METAL - HIGH LEVEL SENSING, Y359.730 (76301)						1	B	MGOZZ
24	7M637BD-6D	.	NIPPLE (76301)						1	B	PAOZZ
25	MS29512-06	.	PACKING						1	B	PAOZZ
26	74A582143-1001	.	BRACKET ASSY - HIGH LEVEL SHUTOFF VALVE, Y365.70 (76301)						1	B	XBOOO
	NAS674V3	.	BOLT (AP)						3		PAOZZ
	AN960JD416	.	WASHER (AP)						3		PAOZZ
	M25988-1-315	.	PACKING (USE WITH INDEX 26)						3		PAOZZ
	NS103597-048	.	NUT, SELF-LOCKING, PLATE (80539) (MCDONNELL SPEC ST3M470C4M) (USE WITH INDEX 26)						4	B*	PAOZZ
	F10965-1-4	.	SEE ABOVE (72962)						4	B*	PAOZZ
	F29339-01-4	.	SEE ABOVE (15653)						4	B*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
27	74A582143-2001	.	BRACKET (76301)						1	B	MGOZZ
28	74A582143-2007	.	COVER (76301)						1	B	MGOZZ
	MS20426AD5 #	.	RIVET (AP)						4		-

Figure 1. No. 1 Fuel Tank Fuel Level Control Shutoff Valve (5VAP541) and High Level Pilot Valve (5VAP539) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161353 & UP	F/A-18A
B	161354 & UP	F/A-18B

Figure 1. No. 1 Fuel Tank Fuel Level Control Shutoff Valve (5VAP541) and High Level Pilot Valve (5VAP539) (Sheet 6)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

No. 2 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE (5VAP596) AND HIGH LEVEL PILOT VALVE (5VAP594)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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AFC 18 AND F18 AFC 53, Figure 1	4
No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596), and High	
Level Pilot Valve (5VAP594) 161716 AND UP; ALSO 161353 THRU	
161715 AFTER F18 AFC 18 AND F18 AFC 53, Figure 2	8
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F18-00055C1)	15 Jul 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-04
Packing (2)	MS29512-06
Packing	MS29513-224
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. On 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53, do substeps below:
 - (1) Disconnect elbow (18, figure 1) from nipple (3).
 - (2) Disconnect support (10) and attaching parts from bracket (11).
 - (3) Remove bolts (16), washers, packing (17), and shutoff valve (14).
 - (4) Remove bolts (9) and attaching parts, spacers (12), and restrictor (13).
 - (5) Remove nipple (3) from shutoff valve (14).
 - (6) Disconnect tubes (4 and 5) from nipples (3 and 6).
 - (7) Remove pilot valve (1) and attaching parts.
 - (8) Remove nipples (3 and 6) from pilot valve (1).
- c. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53, do substeps below:
 - (1) Disconnect elbow (16, figure 2) from nipple (4).
 - (2) Remove bolts (17) and attaching parts.

(3) Remove bolts (14) and attaching parts from valve (12).

(4) Remove bolts (9), bracket (10), restrictor (11), and attaching parts.

(5) Remove nipple (4) from shutoff valve (12).

(6) Disconnect tubes (5 and 6) from nipples (4 and 7).

(7) Remove pilot valve (2) and attaching parts.

(8) Remove nipples (4 and 7) from pilot valve (2).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

- b. Lubricate new packings with petrolatum.
- c. On 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53, do substeps below:
 - (1) Install nipple (3, figure 1) and packing (2) in shutoff valve (14).
 - (2) Prepare bolts (9) and washers for electrical bonding (A1-F18AC-LMM-000).
 - (3) Install bolts (9) and attaching parts, spacers (12), and restrictor (13).
 - (4) Prepare bolts (16) and washers for electrical bonding (A1-F18AC-LMM-000).
 - (5) Install packing (17), shutoff valve (14), bolts (16), and washers.
 - (6) Install support (10) and attaching parts on bracket (11).
 - (7) Connect elbow (18) to nipple (3).
 - (8) Install packings (2 and 7) on nipples (3 and 6). Install nipples in pilot valve (1).

(9) Prepare attaching parts of pilot valve (1) for electrical bonding (A1-F18AC-LMM-000).

(10) Install pilot valve (1) and attaching parts.

(11) Connect tubes (4 and 5) to nipples (3 and 6).

d. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53, do substeps below:

(1) Install nipple (4, figure 2) and packing (3) on shutoff valve (12).

(2) Prepare bolts (9) and washers for electrical bond (A1-F18AC-LMM-000).

(3) Install restrictor (11), bracket (10), bolts (9), and attaching parts.

(4) Prepare bolts (14) and washers for electrical bond (A1-F18AC-LMM-000).

(5) Install packing (15), shutoff valve (12), bolts (14), and attaching parts.

(6) Prepare bolts (17) and washers for electrical bond (A1-F18AC-LMM-000).

(7) Position angle (18) and install bolts (17) and attaching parts.

(8) Connect elbow (16) to nipple (4).

(9) Install nipples (4 and 7) and packings (3 and 8) on pilot valve (2).

(10) Prepare attaching parts of pilot valve (2) for electrical bond (A1-F18AC-LMM-000).

(11) Install pilot valve (2) and attaching parts.

(12) Connect tubes (5 and 6) to nipples (4 and 7).

e. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

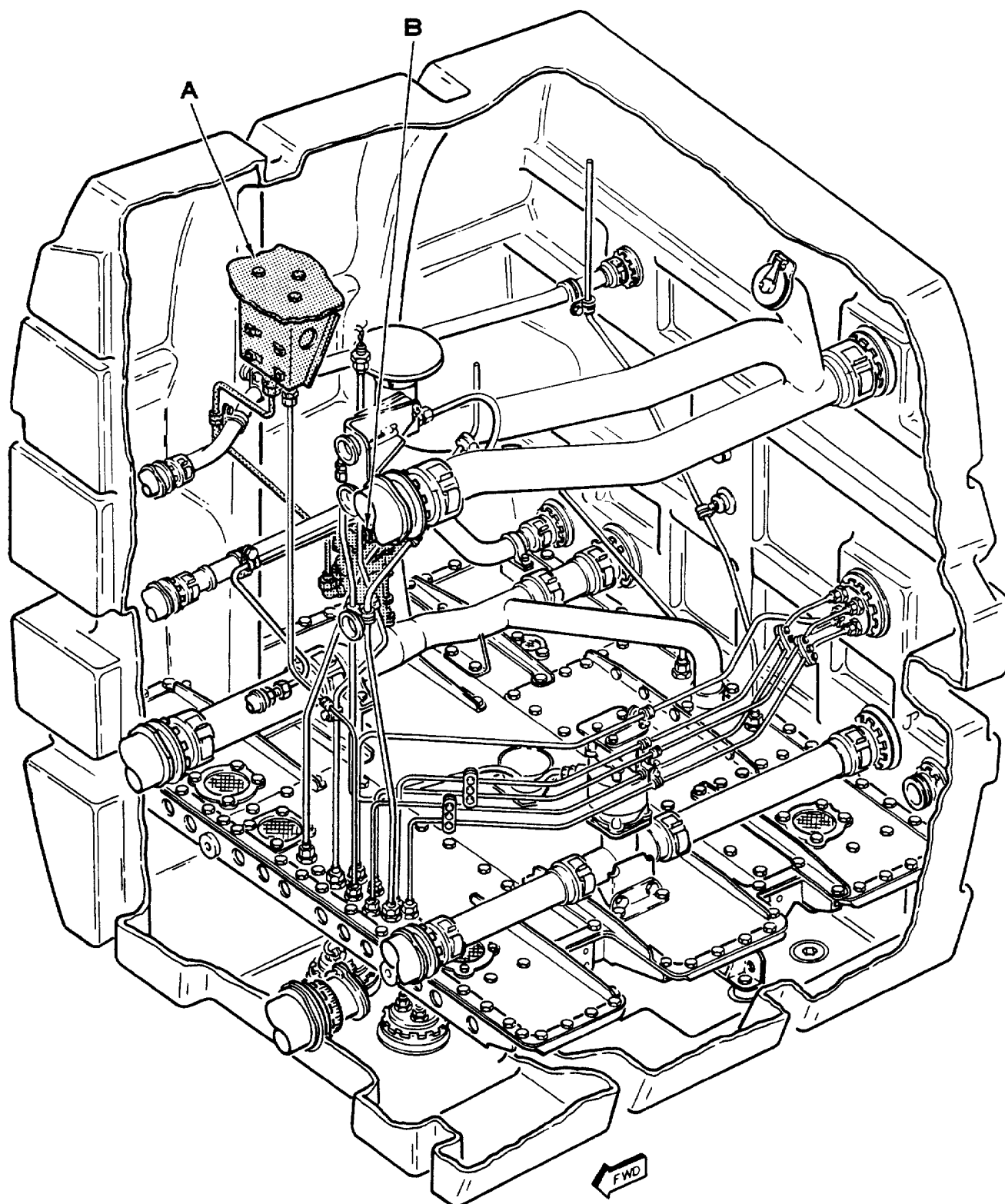
f. Install no. 2 fuel tank access cover (WP005 00).

g. Connect utility and emergency battery connectors (WP013 00).

h. Refuel aircraft using electrical power (A1-F18AC-PCM-000).

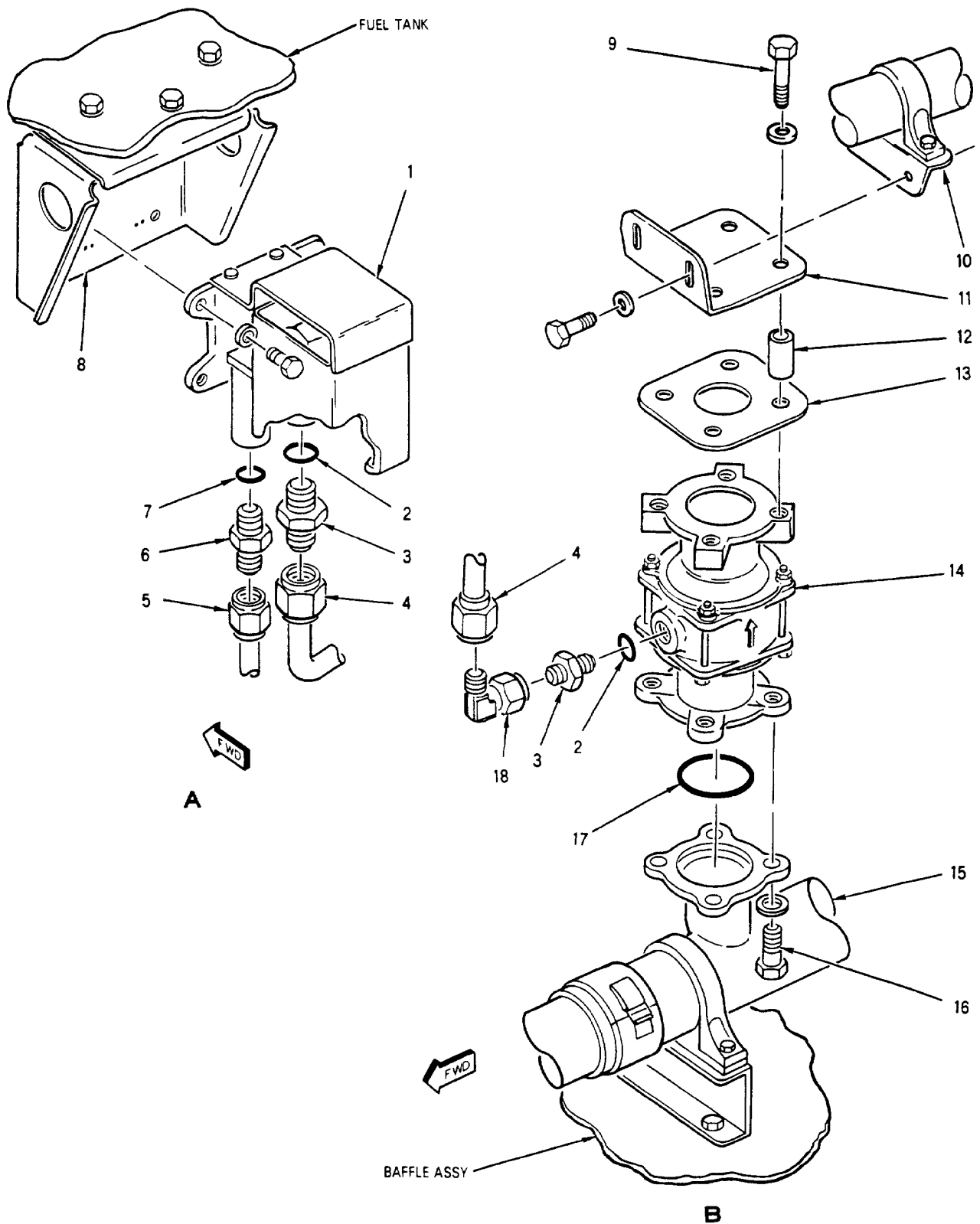
3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



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Figure 1. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53
(Sheet 1)



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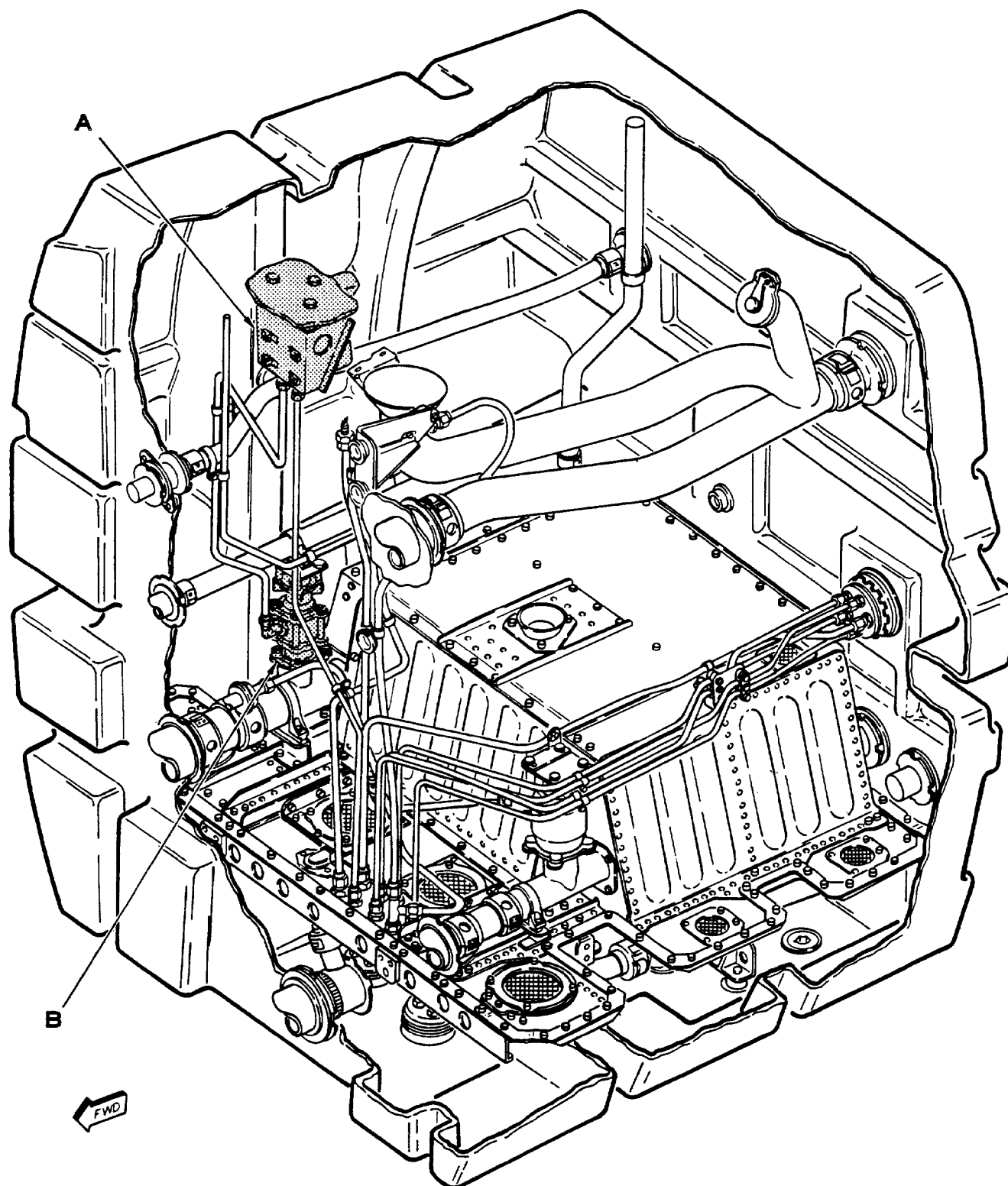
Figure 1. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53 (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 2 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE (5VAP596) AND HIGH LEVEL PILOT VALVE (5VAP594) 61353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53								
1	2800095-101	.	VALVE, FLOAT, AIRCRAFT -					1		PAOZZ
		.	REFUEL LEVEL (NO. 2 FUEL TANK HIGH LEVEL PILOT VALVE) (92003) (MCDONNELL SPEC 74-580108-221) (5VAP594) (REPLACES 2800018-101)							
	2800018-101	.	SEE ABOVE (MCDONNELL SPEC 74-580108-211) (USE UNTIL EXHAUSTED)					1	*	PAOZZ
	NAS673V3	.	BOLT (AP)					4		PAOZZ
	AN960JD416L	.	WASHER (AP)					4		PAOZZ
2	MS29512-04	.	PACKING					1		PAOZZ
3	7M637BD-4D	.	NIPPLE, TUBE (76301)					1		PAOZZ
4	74A586821-1015	.	TUBE ASSEMBLY, METAL - PRECHECK, TANK 2, Y389 UN-FLOAT V (76301) (SUPERSEDES 74A586821-1011 AND 74A586821-1013)					1		MGOZZ
5	74A586283-1003	.	TUBE ASSEMBLY, METAL - FLOAT VALVE RH PORT TO REFUEL V (76301)					1		MGOZZ
6	7M637BD-6D	.	NIPPLE (76301)					2		PAOZZ
7	MS29512-06	.	PACKING					2		PAOZZ
8	74A586244-1021	.	SUPPORT (76301)					1		XBOGG
9	NAS674V20	.	BOLT					4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 9)					4		PAOZZ
10	74A586244-1013	.	SUPPORT (76301)					1		XBOGG
	NAS673V2	.	BOLT (AP)					2		PAOZZ
	AN960JD10L	.	WASHER (AP)					2		PAOZZ
11	74A586244-2041	.	BRACKET (76301)					1		XBOZZ
12	NAS42DD8-80	.	SPACER					4		PAOZZ
13	74A581029-2001	.	RESTRICTOR, FLUID FLOW, PRESSURE FUELING LINE (76301) (5RAP662)					1		MGOZZ
14	2760113-113	.	VALVE, CHECK - REFUEL LEVEL (NO. 2 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580108-223) (5VAP596) (REPLACES 2760113-111, 2760113-109 & 2760113-107)					1		PAOZZ
	2760113-111	.	SEE ABOVE (MCDONNELL SPEC 74-580108-217) (USE UNTIL EXHAUSTED)					1	*	PAOZZ
	2760113-109	.	SEE ABOVE (MCDONNELL SPEC 74-580108-215) (USE UNTIL EXHAUSTED)					1	*	PAOZZ
	2760113-107	.	SEE ABOVE (MCDONNELL SPEC 74-580108-201) (USE UNTIL EXHAUSTED)					1	*	PAOZZ
15	74A586203-1001	.	MANIFOLD, AIRCRAFT - TANK NO. 2 REFUEL SYS (76301)					1		XBOZZ

Figure 1. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53
(Sheet 3)

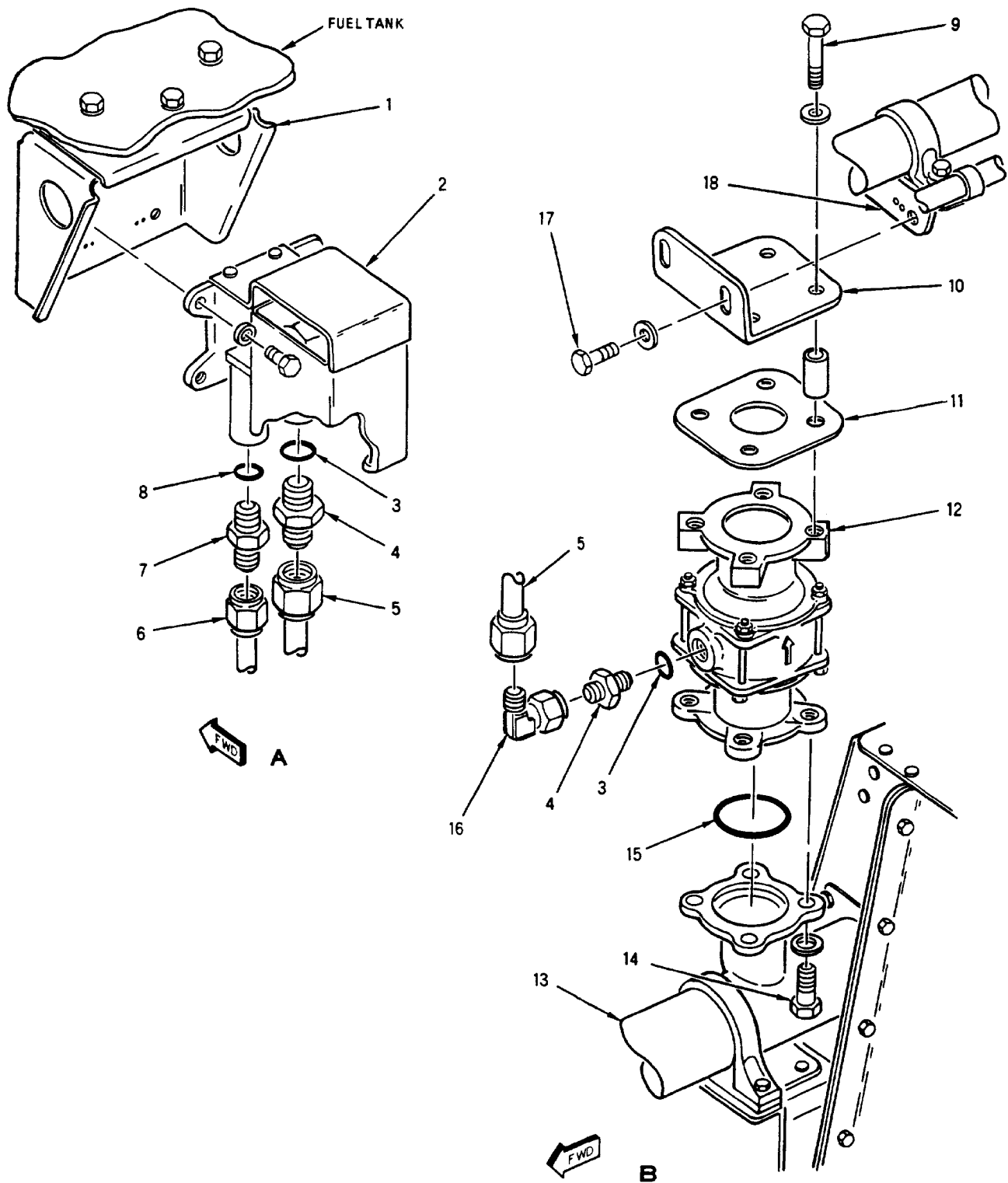
INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
16	NAS674V4	.						BOLT	4		PAOZZ
	AN960JD416L	.						WASHER (USE WITH INDEX 16)	4		PAOZZ
17	MS29513-224	.						PACKING	1		PAOZZ
18	7M148V6	.						ELBOW (76301)	1		PAOZZ
	7M148DA6	.						ELBOW (76301)	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)



05800201

Figure 2. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 1)



05800202

Figure 2. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK FUEL LEVEL									
		CONTROL SHUTOFF VALVE									
		(5VAP596) AND HIGH LEVEL									
		PILOT VALVE (5VAP594) 161716									
		AND UP; ALSO 161353 THRU									
		161715 AFTER F18 AFC 18									
		AND F18 AFC 53									
1	74A586244-1017	.	SUPPORT (76301)						1		XBOGG
2	2800095-101	.	VALVE, FLOAT, AIRCRAFT -						1		PAOZZ
			REFUEL LEVEL (HIGH LEVEL								
			PILOT VALVE) (92003) (MCDONNELL								
			SPEC 74-580108-221) (5VAP594)								
			(REPLACES 2800018-101)								
	2800018-101	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74-580108-211) (USE								
			UNTIL EXHAUSTED)								
	NAS673V3	.	BOLT (AP)						4		PAOZZ
	AN960JD416L	.	WASHER (AP)						4		PAOZZ
3	MS29512-06	.	PACKING						2		PAOZZ
4	7M637BD-6D	.	NIPPLE (76301)						2		PAOZZ
5	74A586250-1009	.	TUBE ASSEMBLY, METAL -						1		MGOZZ
			FLOAT V RH PORT TO								
			REFUEL VALVE (76301)								
			(SUPERSEDES 74A586250-1003)								
6	74A586821-1005	.	TUBE ASSEMBLY, METAL -						1	A	MGOZZ
			PRECHECK, TANK 2, Y389								
			UN-FLOAT (76301)								
	74A586821-1015	.	TUBE ASSEMBLY, METAL -						1	B	MGOZZ
			PRECHECK, TANK 2, Y389								
			UN-FLOAT (76301) (SUPERSEDES								
			74A586821-1011 AND 74A586821-1013)								
7	7M637BD-4D	.	NIPPLE (76301)						1		PAOZZ
8	MS29512-04	.	PACKING						1		PAOZZ
9	NAS674V20	.	BOLT						4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 9)						4		PAOZZ
	NAS42DD8-80	.	SPACER (USE WITH INDEX 9)						4		PAOZZ
10	74A586244-2041	.	BRACKET (76301)						1		XBOZZ
11	74A581029-2001	.	RESTRICTOR, FLUID FLOW						1		MGOZZ
			PRESSURE FUELING LINE								
			(76301) (5RAP662)								
12	2760113-113	.	VALVE, CHECK - REFUEL						1		PAOZZ
			LEVEL (NO. 2 FUEL TANK								
			FUEL LEVEL CONTROL								
			SHUTOFF VALVE) (92003)								
			(MCDONNELL SPEC								
			74-580108-223) (5VAP596)								
			(REPLACES 2760113-111,								
			2760113-109, 2760113-107)								
	2760113-111	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74-580108-217) (USE								
			UNTIL EXHAUSTED)								
	2760113-109	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74-580108-125) (USE								
			UNTIL EXHAUSTED)								
	2760113-107	.	SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
			74-580108-201) (USE UNTIL								
			EXHAUSTED)								

Figure 2. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
13	74A586251-1001	.						REDUCER, REFUEL - TUBE ASSEMBLY (76301)	1		XBOZZ
14	NAS674V4	.						BOLT	4		PAOZZ
	AN960JD416L	.						WASHER (USE WITH INDEX 14)	4		PAOZZ
15	MS29513-224	.						PACKING	1		PAOZZ
16	7M148V6	.						ELBOW (76301)	1		PAOZZ
17	NAS673V2	.						BOLT	2		PAOZZ
	AN960JD10L	.						WASHER (USE WITH INDEX 17)	2		PAOZZ
18	74A586244-1013	.						ANGLE ASSY (76301)	1		XBOGG

* ALTERNATE OR EQUIVALENT
PARTS (WP002 00).

CODE	USABLE ON	MODEL
A	161716 THRU 161741	F/A-18A/B
B	161742 & UP; ALSO 161358 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	F/A-18A/B

Figure 2. No. 2 Fuel Tank Fuel Level Control Shutoff Valve (5VAP596) And High Level Pilot Valve (5VAP594) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 4)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****NO. 3 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE
(5VAP610)****AND HIGH LEVEL PILOT VALVE
(5VAP583)****REFUEL/DEFUEL SYSTEM**

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F18-00055C1)	15 Jul 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
--------------	------------------------------------

Torque Wrench, 0 to 120 Inch-Pounds	-
--	---

(4) Remove shutoff valve (26) packing (27) and attaching parts.

(5) Remove bolts (20) and attaching parts, plate (22), spacers (23 and 33), bracket (24), and restrictor (32).

(6) Remove nipple (30) and packing (31).

(7) Disconnect tubes (9 and 14, detail B) from connector (11) and elbow (15).

(8) Remove bolts (7) and attaching parts and valve (8).

(9) Loosen nut (16) and remove elbow (15), retainer (17), and packing (18).

(10) Remove bolt (13), connector (11), and packings (10 and 12).

c. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53, do substeps below:

(1) Remove coupling (3, figure 2, detail A), packings (2), and tube (1).

(2) Remove probe guide (23, detail B), bolts (25), and attaching parts or bolts (20, 21, and 22), gasket (24), and attaching parts.

(3) Disconnect elbow (34, detail D) from nipple (35).

(4) Remove shutoff valve (28), packing (29), bolts (30 and 31), and attaching parts.

(5) Remove restrictor (27), plate (26), and attaching parts.

(6) Remove nipple (35) and packing (36).

Materials Required

Nomenclature	Specification or Part Number
--------------	---------------------------------

Packing	MS29512-04
Packing (2)	MS29512-06
Packing	MS29513-110
Packing	MS29513-224
Packing (2)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Do general preparation for removal (WP013 00).

b. On 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53, do substeps below:

(1) Remove coupling (3, figure 1, detail A), packings (2) and tube (1).

(2) Disconnect elbow (29, detail C) from nipple (30).

(3) Disconnect clamps (21 and 25) and remove attaching parts.

(7) Disconnect tubes (10 and 15, detail C) from connector (12) and elbow (16).

(8) Remove valve (9), bolts (7), and attaching parts.

(9) On 161973 AND UP, remove shield (8) with attaching parts.

(10) Loosen nut (17) and remove elbow (16), retainer (18), and packing (19).

(11) Remove bolt (14), connector (12), and packings (11 and 13).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. On 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53, do substeps below:

(1) Install packing (31, figure 1, detail C) on nipple (30). Install nipple (30) in shutoff valve (26).

(2) Install restrictor (32), bracket (24), spacers (23 and 33), plate (22), bolts (20), and attaching parts.

(3) Prepare shutoff valve (26) attaching parts (bolts) for electrical bonding (A1-F18AC-LMM-000).

(4) Install packing (27), shutoff valve (26), and attaching parts.

(5) Connect elbow (29) to nipple (30).

(6) Connect clamps (21 and 25) and install attaching parts.

(7) Install packing (18, detail B), retainer (17), nut (16), and elbow (15) with nut (16) fingertight.

(8) Install packings (10 and 12), connector (11), and bolt (13) fingertight.

(9) Install pilot valve (8) with bolts (7) and attaching parts. Snug up all bolts (7), then torque 50 to 70 inch-pounds. Do not retorque without first loosening bolts (7). (QA)

(10) Connect tubes (9 and 14) to connector (11) and elbow (15) and tighten nut (16) and bolt (13).

d. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53, do substeps below:

(1) Install packing (36, figure 2, detail D), and nipple (35) in shutoff valve (28).

(2) Install restrictor (27), plate (26) and attaching parts.

(3) Prepare shutoff valve (28) bolts (30 and 31) for electrical bond (A1-F18AC-LMM-000).

(4) Install packing (29), shutoff valve (28), and bolts (30 and 31) and attaching parts.

(5) Connect elbow (34) to nipple (35).

(6) Install packing (19, detail C), retainer (18), nut (17), and elbow (16), with nut (17) fingertight.

(7) Install packings (11 and 13), connector (12) and bolt (14) fingertight.

(8) On 161716 THRU 161972, install valve (9), bolt (7), and attaching parts.

(9) On 161973 AND UP, install valve (9), shield (8), and attaching parts.

(10) Snug up all bolts (7), then torque 50 to 70 inch-pounds. Do not retorque without first loosening bolts (7). (QA)

(11) Connect tubes (10 and 15) to connector (12) and elbow (16) and tighten nut (17) and bolt (14).

(12) Prepare bolts (20 or 25, detail B) for electrical bonding (A1-F18AC-LMM-000).

(13) Install probe guide (23), bolts (25) or bolts (20, 21 and 22), gasket (24), and attaching parts.

e. Install packings (2, detail A), couplings (3), and tube (1).

f. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

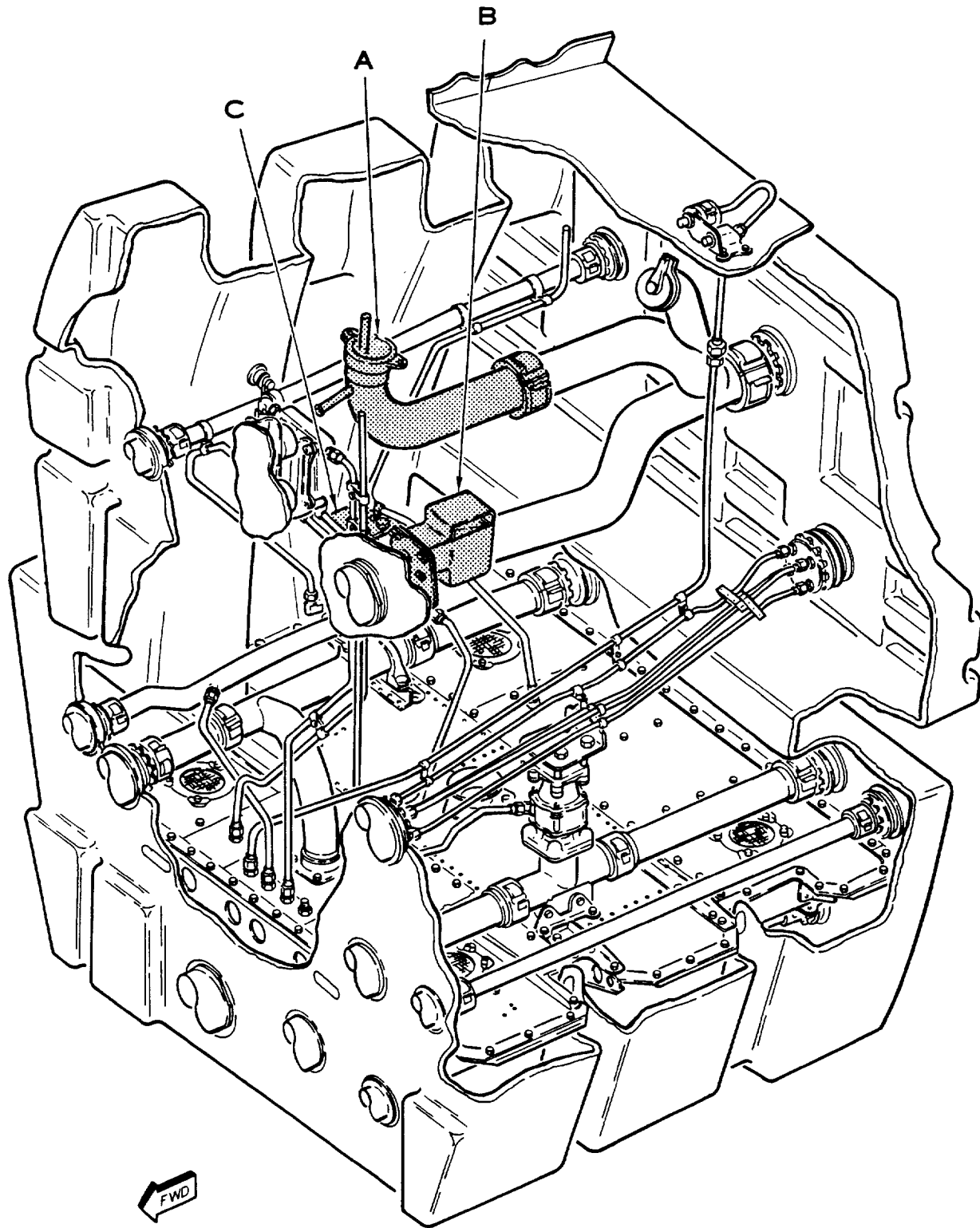
g. Install no. 3 fuel tank access cover (WP006 00).

h. Connect utility and emergency battery connectors (WP013 00).

i. Refuel aircraft using electrical power (A1-F18AC-PCM-000).

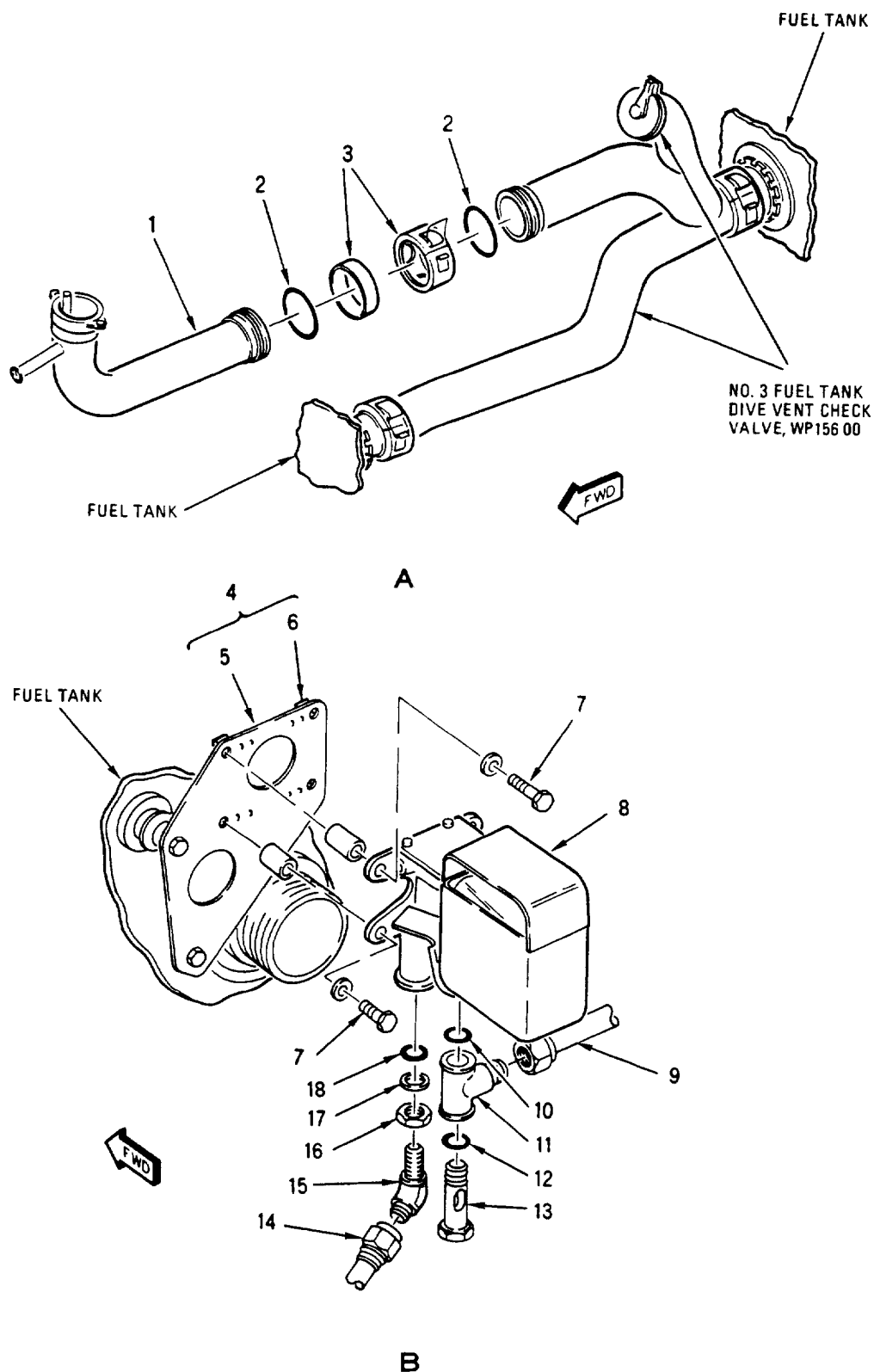
3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



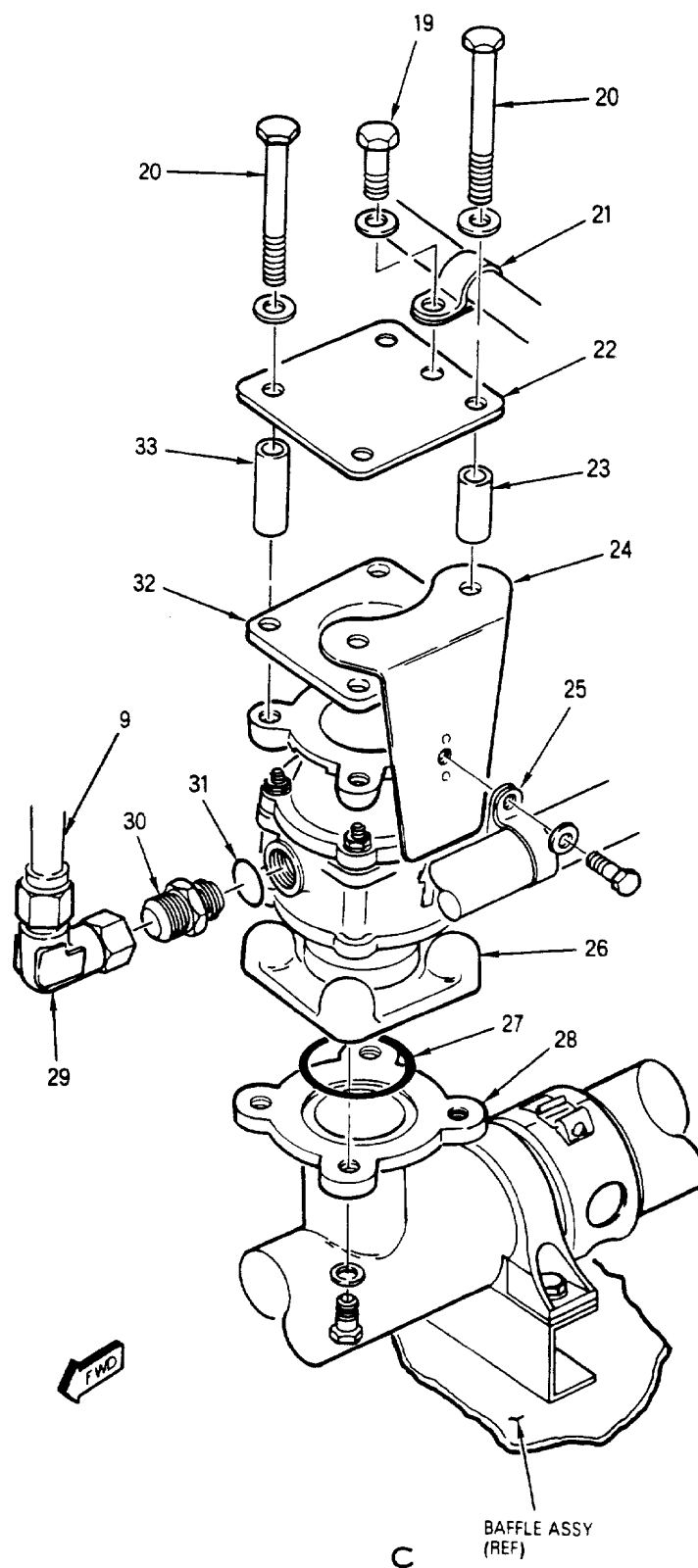
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Figure 1. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53
(Sheet 1)



05900102

Figure 1. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53 (Sheet 2)



05900103

Figure 1. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 3 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE (5VAP610) AND HIGH LEVEL PILOT VALVE (5VAP583) 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53									
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT,						1		XBOOO
	NS103597-02	.	FUEL TANK NO. 3 (76301) NUT, SELF-LOCKING, PLATE						2	*	PAOZZ
	F10965-1-3	.	(80539) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 1) SEE ABOVE (72962)						2	*	PAOZZ
	F29339-01-3	.	SEE ABOVE (15653)						2	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
2	MS29513-230	.	PACKING						2		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
	14J12-40A	.	(79326) (MCDONNELL SPEC 7M765-40D) (INCLUDES SLEEVE) SEE ABOVE (24984)						1		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL SPEC 7M550-40D) (INCLUDES SLEEVE)						1	*	PAOZZ
4	74A586309-1019	.	BRACKET ASSY (76301)						1		XBOOO
5	74A586309-2095	.	SUPPORT (76301)						1		XBOZZ
6	MS21062L4	.	NUT, PLATE						4		PAOZZ
	MS20470AD3 #	.	RIVET (AP)						2		-
7	NAS674V9	.	BOLT						4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 7)						4		PAOZZ
	NAS43DD4-20	.	SPACER (USE WITH INDEX 7)						4		PAOZZ
8	2800095-101	.	VALVE, FLOAT, AIRCRAFT -						1		PAOZZ
	2800018-101	.	REFUEL LEVEL (NO. 3 FUEL TANK HIGH LEVEL PILOT VALVE) (92003) (MCDONNELL SPEC 74-580108-221) (5VAP583) (REPLACES 2800018-101) SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
		.	74-580108-211) (USE UNTIL EXHAUSTED)								
9	74A586341-1005	.	TUBE ASSEMBLY, METAL -						1		MGOZZ
		.	PILOT VALVE, RH PORT TO REFUEL V (76301)								
10	MS29512-06	.	PACKING						1		PAOZZ
11	7M131-6V	.	CONNECTOR (76301)						1		PAOZZ
	7M131-6D	.	CONNECTOR (76301)						1	*	PAOZZ
12	MS29513-110	.	PACKING (UNDER BOLT HEAD)						1		PAOZZ
13	7M130-6D	.	BOLT (76301)						1		
14	74A586362-1005	.	TUBE ASSEMBLY, METAL - TANK						1		MGOZZ
		.	3 PRECHECK, Y422 UN - FLT VALVE (76301)								
15	7M637BY-4D	.	ELBOW, TUBE (76301)						1		PAOZZ
16	AN6289D4	.	NUT						1		PAOZZ
17	MS28773-04	.	RETAINER						1		PAOZZ
18	MS29512-04	.	PACKING						1		PAOZZ
19	NAS673V5	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 19)						1		PAOZZ
20	NAS674V16	.	BOLT						4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 20)						4		PAOZZ

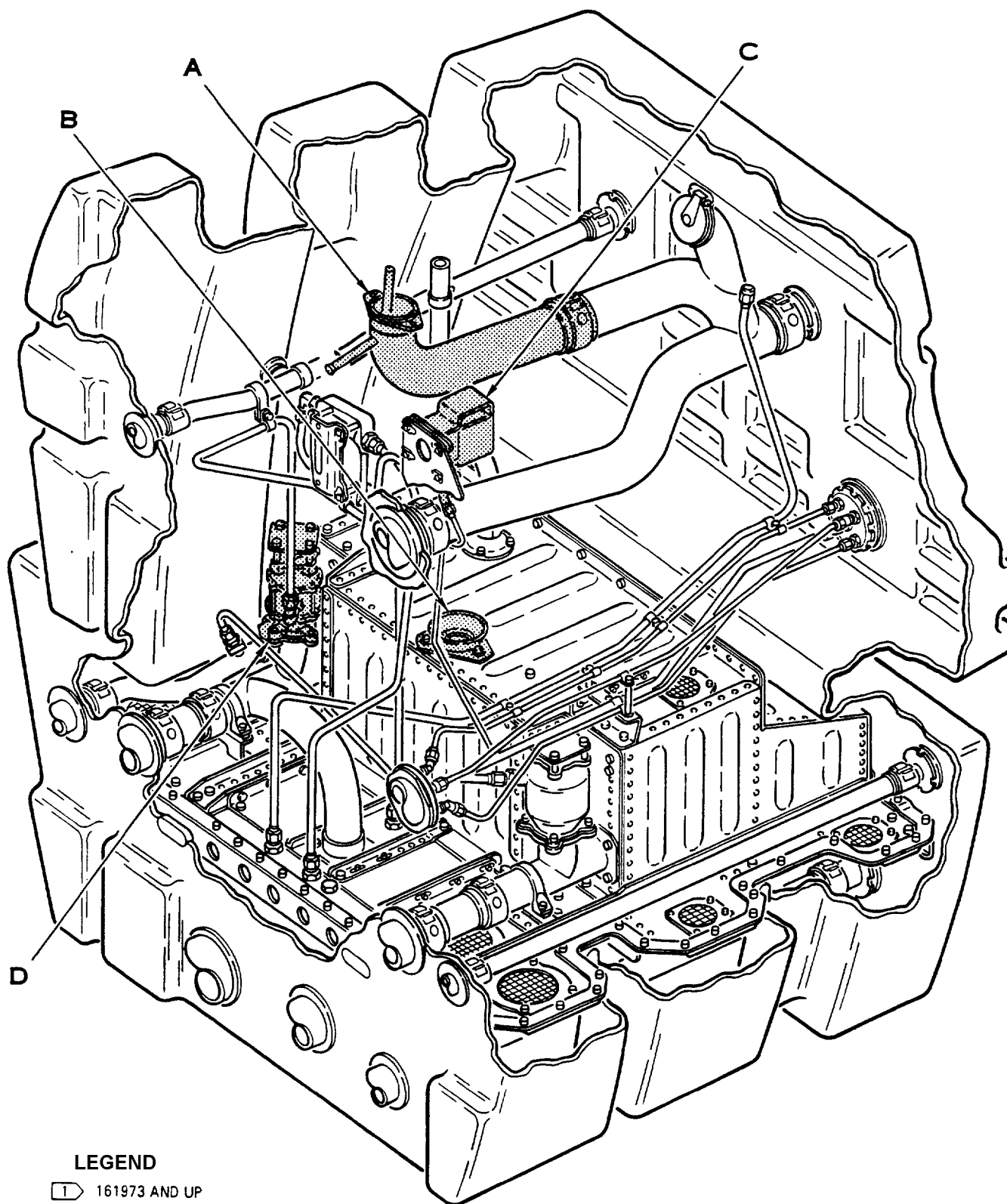
Figure 1. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53
(Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
21	MS25281-R6	.	CLAMP (SUPERSEDES MS25281-6)						1		PAOZZ
22	74A586309-1021	.	DEFLECTOR (PLATE) (76301)						1		XBOZZ
	F50340-3-2	.	NUT, SELF-LOCKING, PLATE (15653) (MCDONNELL SPEC ST3M720C3M2) (USE WITH INDEX 22)						1	*	PAOZZ
	F12089-2-3	.	SEE ABOVE (72962)						1	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
23	NAS43DD4-57	.	SPACER						2		PAOZZ
24	74A586309-1015	.	BRACKET (76301)						1		XBOOO
	F50339-3-2	.	NUT, SELF-LOCKING, PLATE (15653) (MCDONNELL SPEC ST3M719C3M2) (USE WITH INDEX 24)						1	*	PAOZZ
	F12090-2-3	.	SEE ABOVE (72962)						1	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
25	MS25281-R20	.	CLAMP						1		PAOZZ
	NAS673V5	.	BOLT (AP)						1		PAOZZ
	AN960JD10	.	WASHER (AP)						1		PAOZZ
26	2760113-113 1	.	VALVE, CHECK - REFUEL LEVEL (NO. 3 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580108-223) (5VAP610) (REPLACES 2760113-111, 2760113-109 & 2760113-107)						1		PAOZZ
	2760113-111	.	SEE ABOVE (MCDONNELL SPEC 74-580108-217) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
	2760113-109	.	SEE ABOVE (MCDONNELL SPEC 74-580108-215) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
	2760113-107	.	SEE ABOVE (MCDONNELL SPEC 74-580108-201) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
27	MS29513-224	.	PACKING						1		PAOZZ
28	74A586326-1005	.	MANIFOLD, DEFUELING - TANK NO. 3 (76301)						1		XBOZZ
29	7M148V6	.	ELBOW (76301)						1		PAOZZ
	7M148DA6	.	ELBOW (76301)						1	*	PAOZZ
30	7M637BD-6D	.	NIPPLE (76301)						1		PAOZZ
31	MS29512-06	.	PACKING						1		PAOZZ
32	74A581029-2001	.	RESTRICTOR, FLUID FLOW, PRESSURE FUELING LINE (76301) (5RAP663)						1		MGOZZ
33	NAS43DD4-61	.	SPACER						2		PAOZZ

LENGTH/SIZE TO BE DETERMINED AT INSTALLATION.

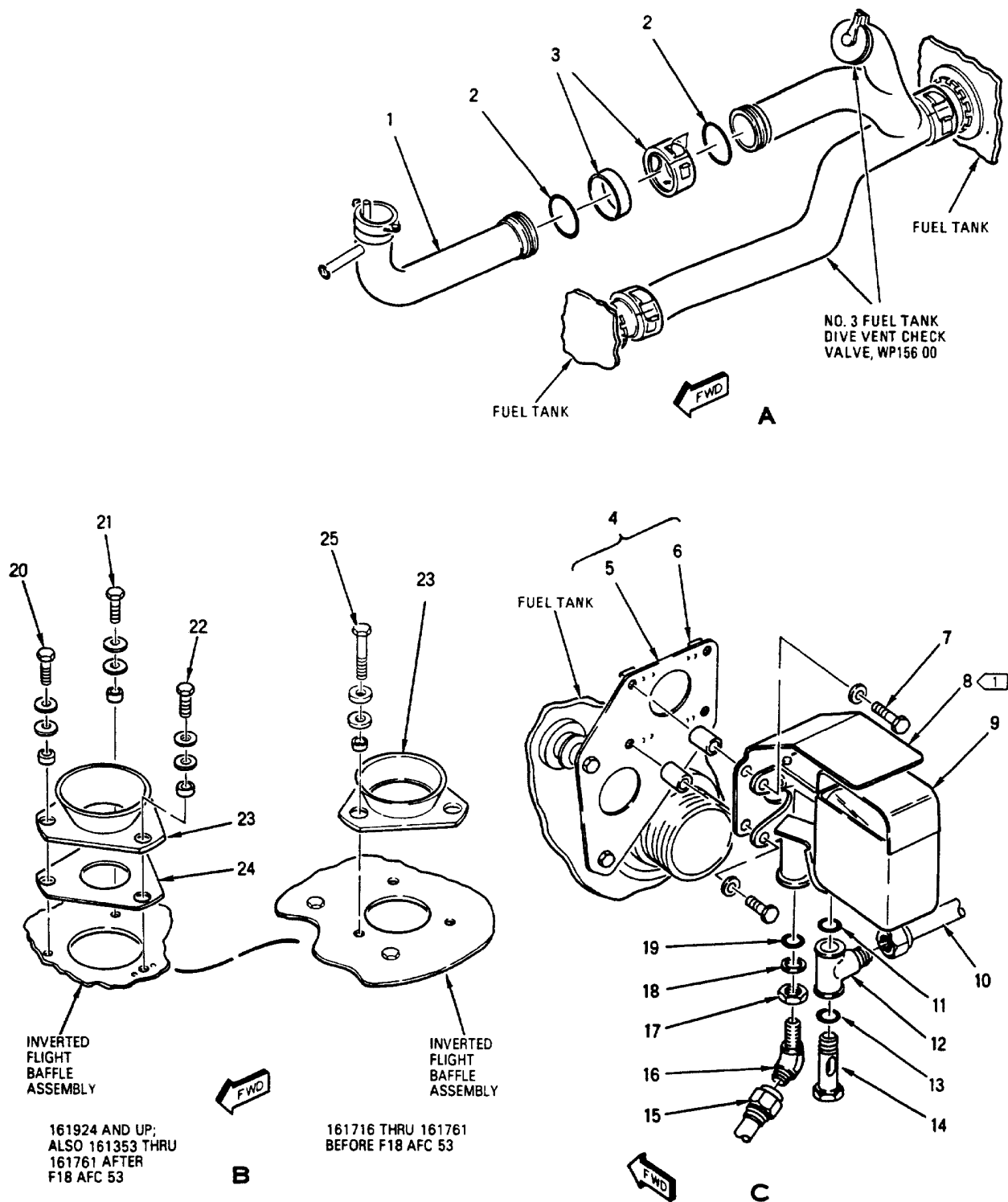
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

Figure 1. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161353 THRU 161715 BEFORE F18 AFC 18 And F18 AFC 53 (Sheet 5)



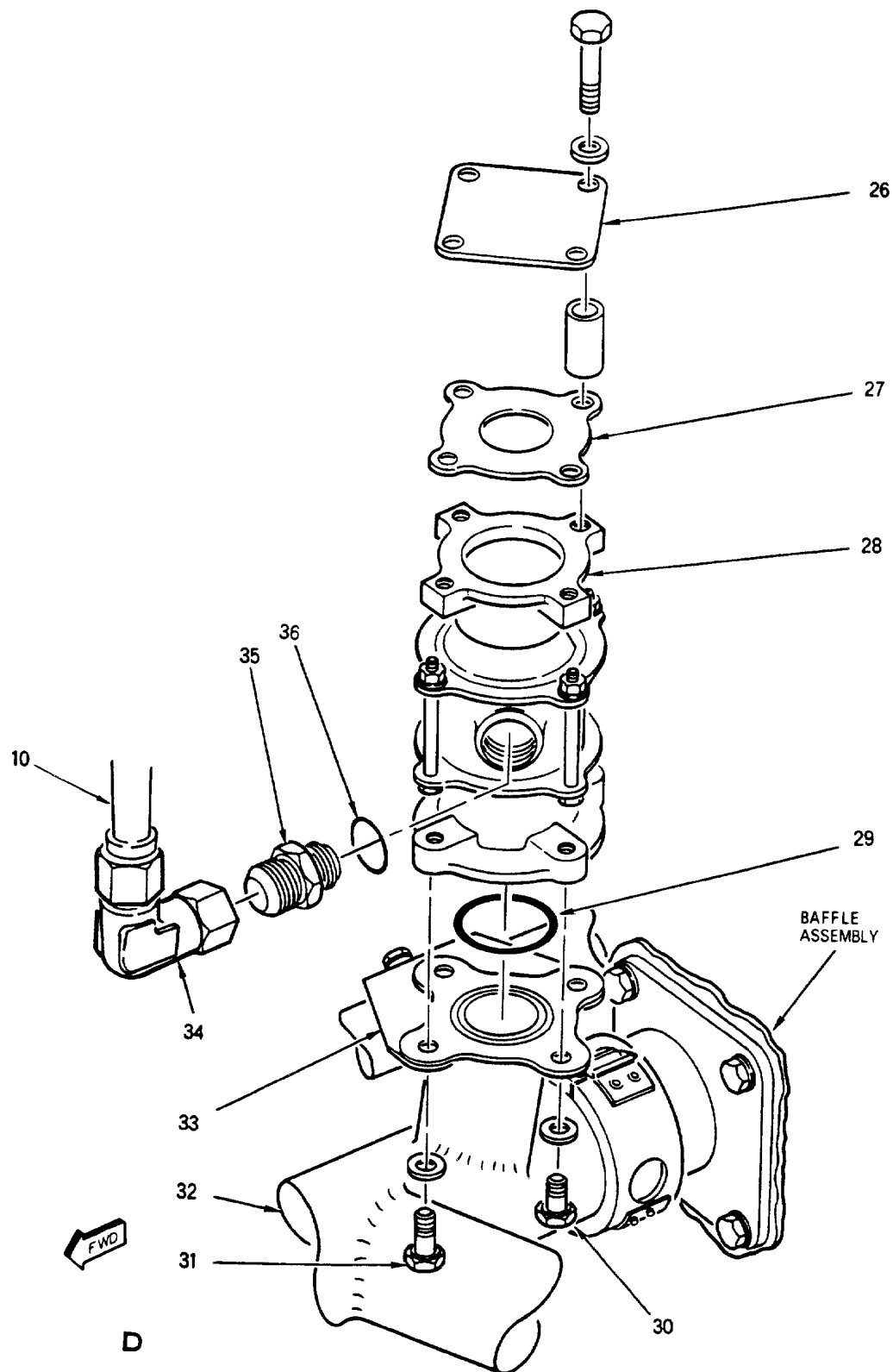
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Figure 2. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 1)



05900202

Figure 2. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 2)



05900203

Figure 2. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 3 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE (5VAP610) AND HIGH LEVEL PILOT VALVE (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53									
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT,						1		XBOOO
	NS103597-02	.	FUEL TANK NO. 3 (76301) NUT, SELF-LOCKING, PLATE						2	*	PAOZZ
			(80539) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 1)								
	F10965-1-3	.	SEE ABOVE (72962)						2	*	PAOZZ
	F29339-01-3	.	SEE ABOVE (15653)						2	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
2	MS29513-230	.	PACKING						2		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(79326) (MCDONNELL SPEC 7M765-40D) (INCLUDES SLEEVE)								
	14J12-40A	.	SEE ABOVE (24984)						1		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL SPEC 7M550-40D) (INCLUDES SLEEVE)						1	*	PAOZZ
4	74A586309-1019	.	BRACKET ASSY (76301)						1		XBOOO
5	74A586309-2095	.	SUPPORT (76301)						1		XBOZZ
6	MS21062L4	.	NUT, PLATE						4		PAOZZ
	MS20470AD3 #	.	RIVET (AP)						2		-
7	NAS674V9	.	BOLT						4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 7)						4		PAOZZ
	NAS43DD4-20	.	SPACER (USE WITH INDEX 7)						4		PAOZZ
8	74A585762-2001	.	SHIELD, FLOAT VALVE - TK No. 3,						1	C	PAOZZ
			Y419.000 (76301)								
9	2800095-101	.	VALVE, FLOAT AIRCRAFT -						1		PAOZZ
			REFUEL LEVEL (NO. 3 FUEL TANK HIGH LEVEL PILOT VALVE) (92003) (MCDONNELL SPEC 74-580108-221) (5VAP583) (REPLACES 2800018-101)								
	2800018-101	.	SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
			74-580108-211) (USE UNTIL EXHAUSTED)								
10	74A586341-1015	.	TUBE ASSEMBLY, METAL -						1		MGOZZ
			PILOT VALVE, RH PORT TO REFUEL V (76301) (SUPERSEDES 74A586341-1007 AND 74A586341-1011)								
11	MS29512-06	.	PACKING						1		PAOZZ
12	7M131-6V	.	CONNECTOR (76301)						1		PAOZZ
13	MS29513-110	.	PACKING (UNDER BOLT HEAD)						1		PAOZZ
14	7M130-6D	.	BOLT (76301)						1		PAOZZ
15	74A586362-1013	.	TUBE ASSEMBLY, METAL - TANK 3						1		MGOZZ
			PRECHECK, Y422 UN - FLT VALVE (76301) (SUPERSEDES 74A586362-1009)								
16	7M637BY-4D	.	ELBOW, TUBE (76301)						1		PAOZZ
17	AN6289D4	.	NUT						1		PAOZZ
18	MS28773-04	.	RETAINER						1		PAOZZ
19	MS29512-04	.	PACKING						1		PAOZZ

Figure 2. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
20	NAS673V6	.	BOLT	.....					1	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH	.....					2		PAOZZ
			INDEX 20)								
	NAS43DD3-11	.	SPACER (USE WITH INDEX 20)	.....					1		PAOZZ
21	NAS673V7	.	BOLT	.....					1	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH	.....					2		PAOZZ
			INDEX 21)								
	NAS43DD3-11	.	SPACER (USE WITH INDEX 21)	.....					1		PAOZZ
22	NAS673V5	.	BOLT	.....					1	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH	.....					2		PAOZZ
			INDEX 22)								
	NAS43DD3-11	.	SPACER (USE WITH INDEX 22)	.....					1		PAOZZ
23	74A586297-2001	.	GUIDE, PROBE - FUEL QTY.	.....					1		XBOZZ
			TANK 2 & 3 (76301)								
24	74A586556-2001	.	GASKET, PROBE GUIDE - RAISED	.....					1	B	XBOZZ
			INVERTED BAFFLE TK 2 & 3								
			(76301)								
25	NAS673V4	.	BOLT	.....					3	A	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH INDEX 25)	.....					6		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 25)	.....					3		PAOZZ
26	74A586309-2015	.	DEFLECTOR (PLATE) (76301)	.....					1		XBOZZ
	NAS674V16	.	BOLT (AP)	.....					4		PAOZZ
	AN960JD416L	.	WASHER (AP)	.....					4		PAOZZ
	NAS43DD4-61	.	SPACER (AP)	.....					4		PAOZZ
	F50340-3-2	.	NUT SELF-LOCKING PLATE	.....					1	*	PAOZZ
			(15653) (MCDONNELL SPEC								
			ST3M720C3M2) (USE WITH								
			INDEX 26)								
	F12089-2-3	.	SEE ABOVE (72962)	.....					1	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)	.....					2		-
27	74A581029-2001	.	RESTRICTOR, FLUID FLOW,	.....					1		MGOZZ
			PRESSURE FUELING LINE								
			(76301) (5RAP663)								
28	2760113-113	.	VALVE, CHECK - REFUEL LEVEL	.....					1		PAOZZ
			(NO. 3 FUEL TANK FUEL LEVEL								
			CONTROL SHUTOFF VALVE)								
			(92003) (MCDONNELL SPEC								
			74-580108-223) (5VAP610)								
			(REPLACES 2760113-111,								
			2760113-109 & 2760113-107)								
	2760113-111	.	SEE ABOVE (MCDONNELL	.....					1	*	PAOZZ
			SPEC 74-580108-217) (USE								
			UNTIL EXHAUSTED)								
	2760113-109	.	SEE ABOVE (MCDONNELL	.....					1	*	PAOZZ
			SPEC 74-580108-215) (USE								
			UNTIL EXHAUSTED)								
	2760113-107	.	SEE ABOVE (MCDONNELL	.....					1	*	PAOZZ
			SPEC 74-580108-201) (USE								
			UNTIL EXHAUSTED)								
29	MS29513-224	.	PACKING	.....					1		PAOZZ
30	NAS674V3	.	BOLT	.....					1		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 30)	.....					1		PAOZZ
31	NAS674V5	.	BOLT	.....					3		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 31)	.....					3		PAOZZ
32	74A586317-1005	.	MANIFOLD, FUEL, AIRCRAFT -	.....					1		XBOZZ
			TANK NO. 3 (76301) (SUPERSEDES								
			74A586317-1001)								
33	74A586323-1035	.	BRACKET (76301)	.....					1		XBOZZ

Figure 2. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
34	7M148V6	.	ELBOW (76301)	.....					1		PAOZZ
35	7M637BD-6D	.	NIPPLE (76301)	.....					1		PAOZZ
36	MS29512-06	.	PACKING	.....					1		PAOZZ

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161716 THRU 161761 BEFORE F18 AFC 18 AND F18 AFC 53	F/A-18A/B
B	161924 & UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18 AND F18 AFC 53	F/A-18A/B
C	161973 & UP	F/A-18A/B

Figure 2. No. 3 Fuel Tank Fuel Level Control Shutoff Valve (5VAP610) and High Level Pilot Valve (5VAP583) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 And F18 AFC 53 (Sheet 6)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 4 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE AND HIGH LEVEL PILOT VALVE
(5VAP569 AND 5VAP556)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 4 Fuel Tank Forward Access Cover	WP007 00
No. 4 Fuel Tank Aft Access Cover and Tank Entry Procedure	WP008 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-04
Packing (2)	MS29512-06
Packing	MS29513-224
Packing (2)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Do general preparation for removal (WP013 00).

b. Remove no. 4 fuel tank forward access cover (WP007 00).

c. Do no. 4 fuel tank aft access cover and tank entry procedure removal (WP008 00) and do substeps below:

(1) Disconnect tube (9, detail B) from elbow (18 or 20).

(2) Remove shutoff valve (10), packing (11) and attaching parts.

(3) Remove elbow (18, detail C), nipple (19) and packing (15), or loosen nut (21) and remove elbow (20) and packing (15).

d. Working through forward access opening of tank 4, do substeps below:

(1) Remove bracket (1, figure 1, detail A), attaching parts, coupling (4), tube (2), and packings (3).

(2) Disconnect tubes (8 and 9, detail B) from nipples (7 and 14).

(3) Remove valve (5) and attaching parts.

(4) Remove nipples (7 and 14) and packings (6 and 15).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



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b. Lubricate new packings with petrolatum.

c. Working through aft access opening of tank 4, do substeps below:

(1) Install packing (15, figure 1, detail C) in shutoff valve (10).



Do not install elbow in 2760113-107 or 2760113-109 valve.

(2) On 2760113-111 or 2760113-113 valve, install nut (21) on elbow (20) and install in valve (10).

(3) On 2760113-107 or 2760113-109 valve, install nipple (19) and elbow (18) in valve (10).

(4) Prepare mating surfaces of shutoff valve (10) and manifold for electrical bonding (A1-F18AC-LMM-000).

(5) Install packing (11), shutoff valve (10), and attaching parts.

(6) Connect tube (9) to elbow (18 or 20).

(7) Do no. 4 fuel tank entry procedure installation (WP008 00).

d. Working through forward access opening of tank 4, perform the following substeps:

(1) Install packings (6 and 15, detail B) and nipples (7 and 14) in valve (5).

(2) Prepare mating surfaces of pilot valve (5) and adapter (17 or 12) for electrical bond (A1-F18AC-LMM-000).

(3) Install valve (5) and attaching parts.

(4) Connect tubes (8 and 9) to nipples (7 and 14).

(5) Install tube (2, detail A), packings (3), coupling (4), bracket (1) and attaching parts.

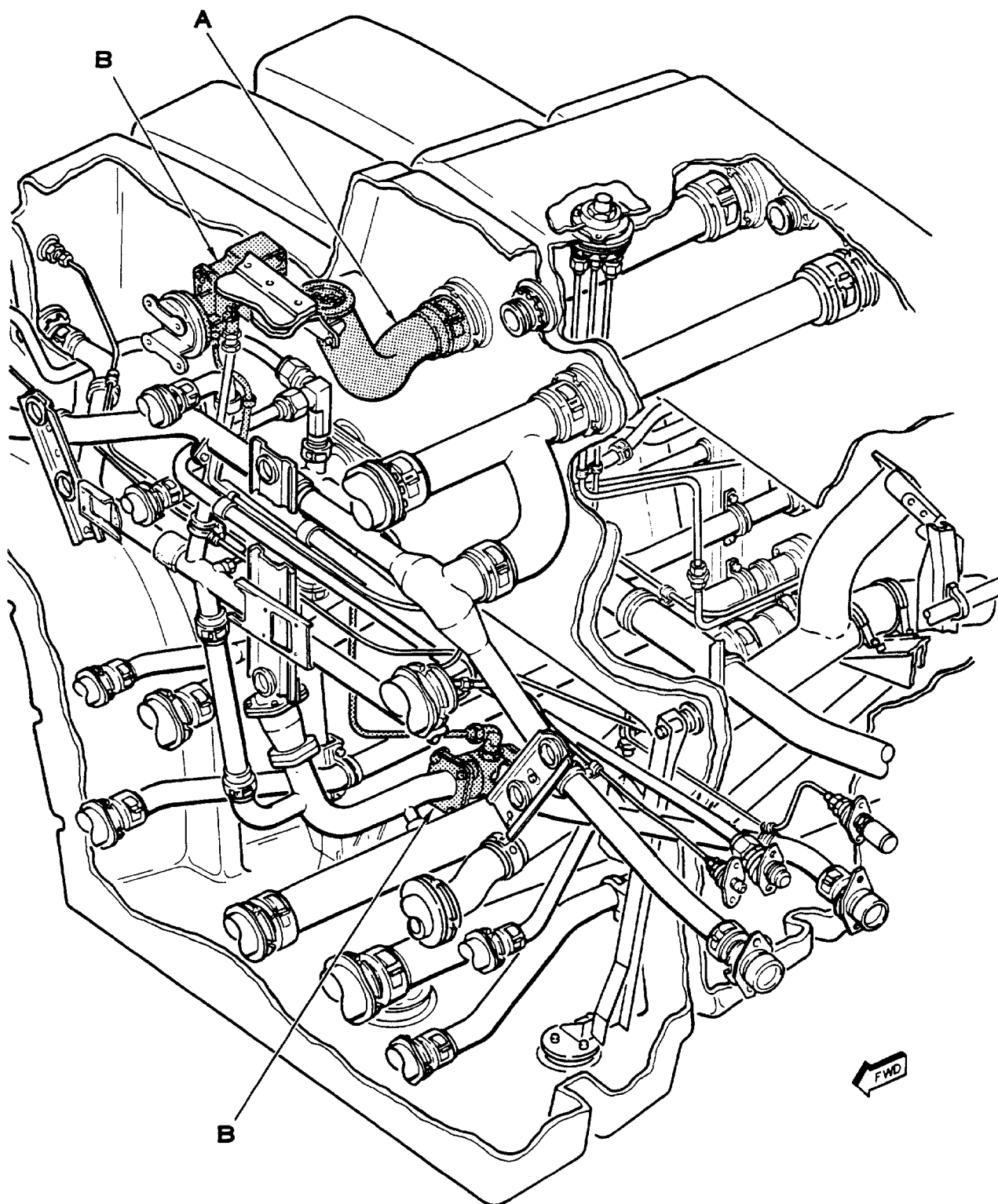
e. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

f. Install no. 4 fuel tank forward and aft access covers (WP007 00 and WP008 00).

g. Refuel aircraft using electrical power (A1-F18AC-PCM-000).

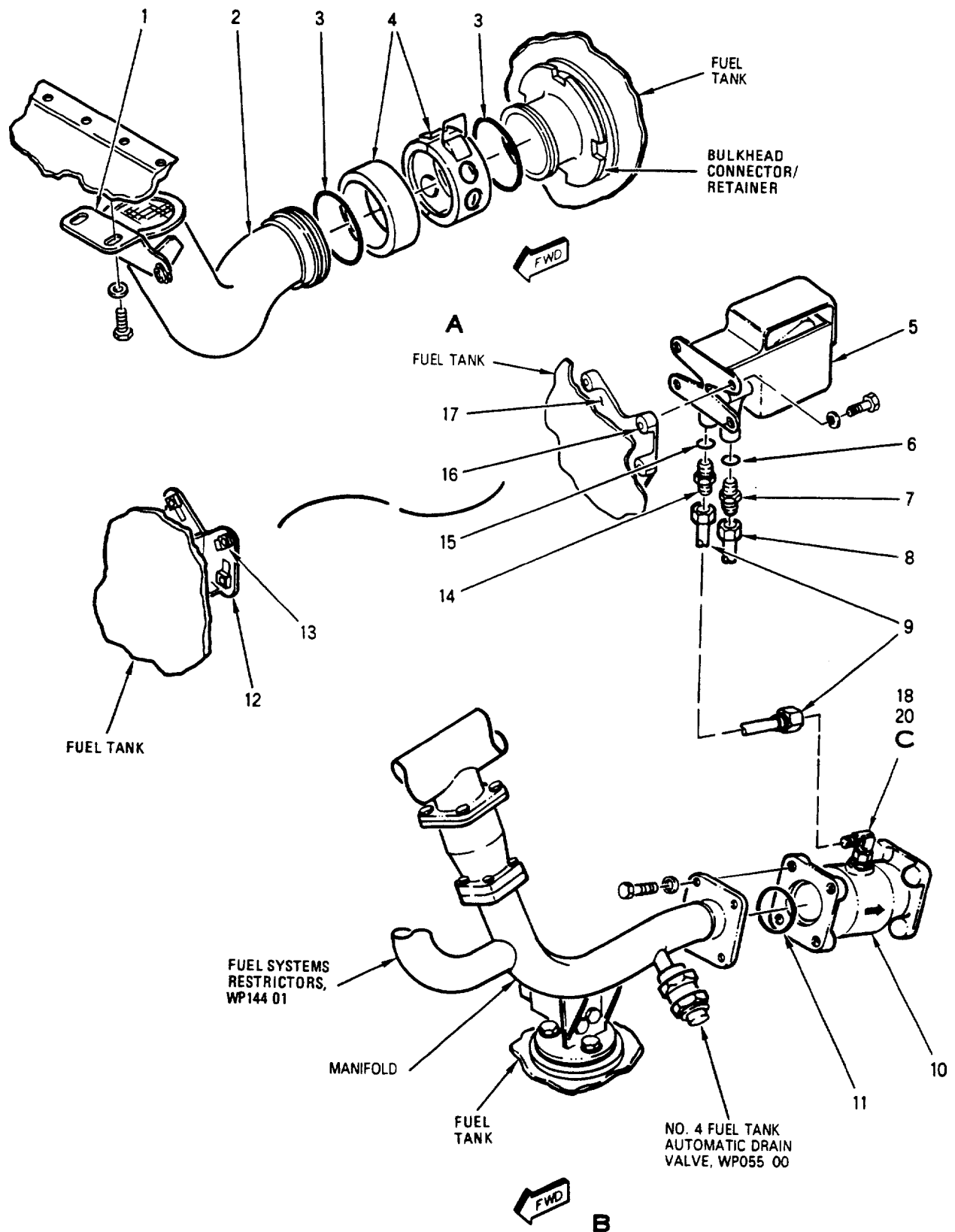
3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



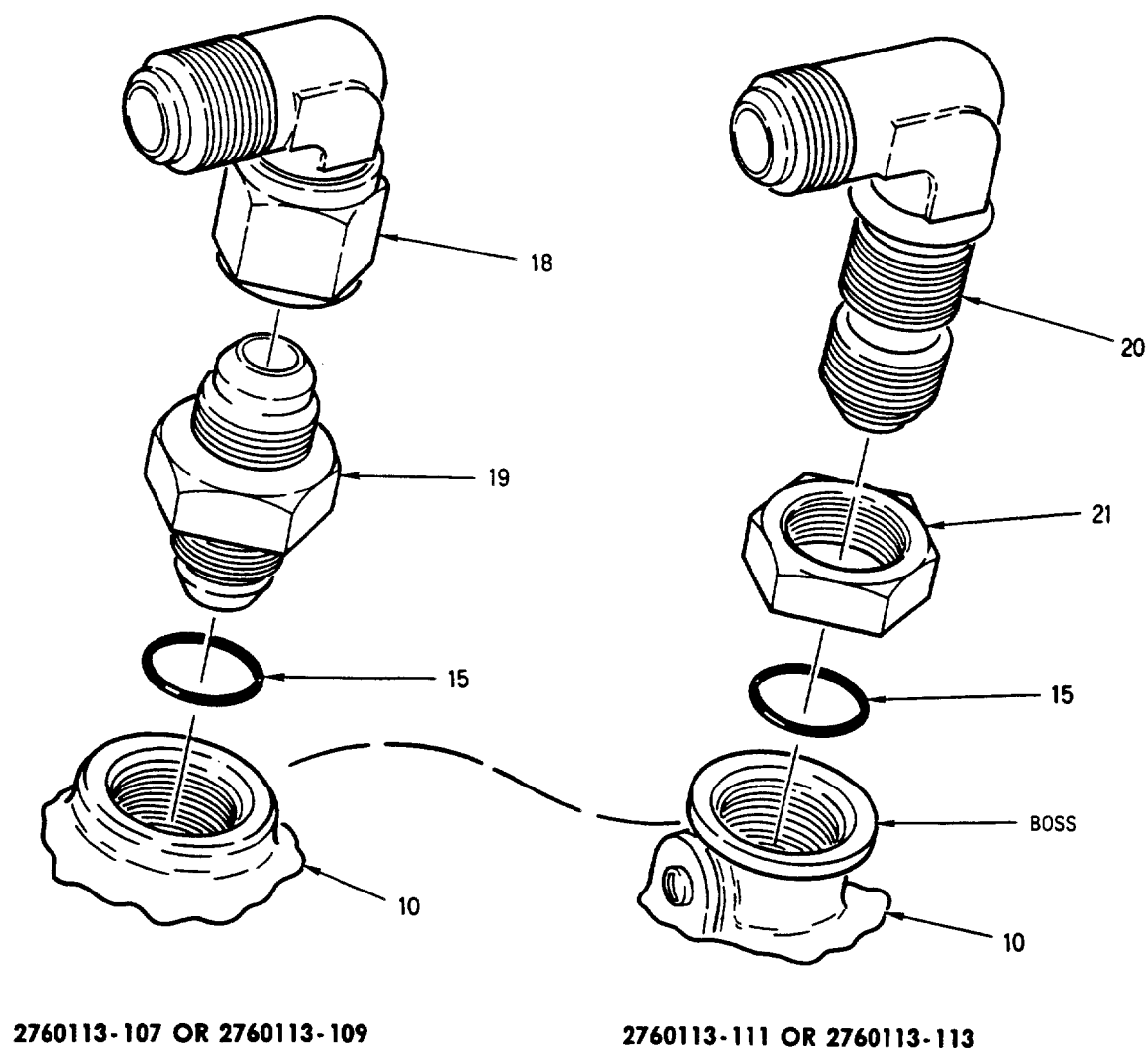
06000101

Figure 1. No. 4 Fuel Tank Fuel Level Control Shutoff Valve (5VAP569) and High Level Pilot Valve (5VAP556) (Sheet 1)



06000102

Figure 1. No. 4 Fuel Tank Fuel Level Control Shutoff Valve (5VAP569) and High Level Pilot Valve (5VAP556) (Sheet 2)



06000103

Figure 1. No. 4 Fuel Tank Fuel Level Control Shutoff Valve (5VAP569) and High Level Pilot Valve (5VAP556) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 4 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE (5VAP569) AND HIGH LEVEL PILOT VALVE (5VAP556)								
1	74A586429-1095	.	BRACKET (76301) (SUPERSEDES	74A586429-1015)				1		XBOOO
	MS21060L3	.	NUTPLATE (USE WITH INDEX 1)					2		PAOZZ
	MS20426AD3 #	.	RIVET (AP)					2		-
	NAS674V1	.	BOLT (AP)					2		PAOZZ
	AN960JD416L	.	WASHER (AP)					2		PAOZZ
2	74A586462-1003	.	TUBE ASSEMBLY, METAL -	CLIMB VENT (76301) (SUPERSEDES 74A586462-1001)				1		XBOZZ
	NAS673V2	.	BOLT (AP)					2		PAOZZ
	AN960JD10L	.	WASHER (AP)					2		PAOZZ
3	MS29513-230	.	PACKING					2		PAOZZ
4	W901K40DE	.	COUPLING, CLAMP, GROOVED	(79326) (MCDONNELL SPEC 7M765-40D) (INCLUDES SLEEVE)				1		PAOZZ
	14J12-40A	.	SEE ABOVE (24984)					1		PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL SPEC 7M550-40D) (INCLUDES SLEEVE)					1	*	PAOZZ
5	2800095-101	.	VALVE, FLOAT, AIRCRAFT FUEL	TANK - REFUEL LEVEL (NO. 4 FUEL TANK HIGH LEVEL PILOT VALVE) (92003) (MCDONNELL SPEC 74-580108-221) (5VAP556) (REPLACES 2800018-101)				1		PAOZZ
	2800018-101	.	SEE ABOVE (MCDONNELL SPEC	74-580108-211) (USE UNTIL EXHAUSTED)				1	*	PAOZZ
	NAS674V2	.	BOLT (AP)					4		PAOZZ
	AN960JD416L	.	WASHER (AP)					4		PAOZZ
6	MS29512-D4	.	PACKING					1		PAOZZ
7	7M637BD-4D	.	NIPPLE, TUBE (76301)					1		PAOZZ
8	74A586854-1005	.	TUBE ASSEMBLY, METAL -	REFUEL PRECHECK, LEVEL CONT, TK 4 (76301)				1	B	MGOZZ
	74A586854-1009	.	SEE ABOVE					1	A	MGOZZ
9	74A586858-1005	.	TUBE ASSY, METAL - REFUEL	SHUTOFF, LEVEL CONT, TANK (76301)				1	B	MGOZZ
	74A586832-1003	.	SEE ABOVE					1	A	MGOZZ
10	2760113-113	.	VALVE, CHECK - REFUEL	LEVEL (NO. 4 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580108-223) (5VAP569) (REPLACES 2760113-111, 2760113-109 & 2760113-107)				1	*	PAOZZ
	2760113-111	.	SEE ABOVE (MCDONNELL SPEC	74-580108-217) (USE UNTIL EXHAUSTED)				1	*	PAOZZ
	2760113-109	.	SEE ABOVE (MCDONNELL SPEC	74-580108-215) (USE UNTIL EXHAUSTED)				1	*	PAOZZ

Figure 1. No. 4 Fuel Tank Fuel Level Control Shutoff Valve (5VAP569) and High Level Pilot Valve (5VAP556) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	2760113-107	.	SEE ABOVE (MCDONNELL SPEC	.....					1	*	PAOZZ
			74-580108-201) (USE UNTIL								
			EXHAUSTED)								
	NAS674V4	.	BOLT (AP)	.....					4		PAOZZ
	AN960JD416L	.	WASHER (AP)	.....					4		PAOZZ
11	MS29513-224	.	PACKING	.....					1		PAOZZ
12	74A586882-1005	.	ADAPTER, FLOAT VALVE - TK NO. 4,	.....					1	B	XBOOO
			Y453.000 (76301)								
13	MS21062L4	.	NUT, PLATE	.....					4	B	PAOZZ
	MS20426AD3 #	.	RIVET (AP)	.....					2	B	-
14	7M637BD-6D	.	NIPPLE, TUBE (76301)	.....					1		PAOZZ
15	MS29512-06	.	PACKING	.....					2		PAOZZ
16	MS21209F4-15	.	INSERT	.....					4	A	PAOZZ
17	74A586882-1007	.	ADAPTER, FLOAT VALVE - TK NO. 4,	.....					1	A	XBOOO
			Y453.000 (76301)								
	MS21209F4-15	.	INSERT (USE WITH INDEX 17)	.....					4	B	PAOZZ
18	7M148V6 +	.	ELBOW, TUBE (76301)	.....					1		PAOZZ
	7M148DA6 +	.	ELBOW, TUBE (76301)	.....					1	*	PAOZZ
19	7M637BD-6D +	.	NIPPLE, TUBE (76301)	.....					1		PAOZZ
20	7M637BW-6D @	.	ELBOW (76301)	.....					1		PAOZZ
21	AN924-6D @	.	NUT	.....					1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

@ USE WITH 2760113-111
OR 2760113-113

+ USE WITH 2760113-107
OR 2760113-109

CODE	USABLE ON	MODEL
A	161720 & UP	F/A-18A/B
B	161353 THRU 161719	F/A-18A/B

Figure 1. No. 4 Fuel Tank Fuel Level Control Shutoff Valve (5VAP569) and High Level Pilot Valve (5VAP556) (Sheet 5)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
WING REFUEL/DEFUEL SHUTOFF VALVE
(5VAU553 OR 5VAV554)
AND STRAINER
(5FAU683 OR 5FAV684)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-

NOTE

This procedure is typical for left or right valve.

1. REMOVAL.

a. Defuel wing per substeps below:

(1) Do or observe defueling precautions
(A1-F18AC-PCM-000).

(2) Apply external electrical power (A1-F18AC-
LMM-000).

(3) On cockpit FUEL QTY indicator, set FUEL
QTY selector to INTER WING (figure 1).

(4) Monitor FUEL QTY indicator.

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing	MS29513-132
Packing (2)	MS29513-226
Petrolatum, Technical	VV-P-236 (CAGE 81348)

(5) Defuel aircraft (A1-F18AC-PCM-000) until LEFT and RIGHT counters on FUEL QTY indicator displays 0000.

(6) Remove external electrical power (A1-F18AC-LMM-000).

b. Drain residual wing fuel (A1-F18AC-PCM-000).

c. Observe applicable fuel tank maintenance precautions (WP013 00).

d. Open door 76L or 76R (A1-F18AC-LMM-010).

e. Remove clamps (1 and 3, figure 1), bolt (2), and nut (4).

f. Remove clamp (13), bolt (16), and nut (11).

g. Remove coupling (8), and remove packings (7) and disconnect tube at nipple (5).

h. Remove bolts (14) and valve (15).

i. Remove nipple (5) and packing (6).

j. On 161735 AND UP, remove strainer (9) and packing (10).

k. On 161735 AND UP, inspect strainer (9) for damage or foreign objects.

l. Inspect tube assemblies for foreign material.

m. To prevent contamination, position door 76R or 76L over opening.

2. INSTALLATION.

a. Observe applicable fuel tank maintenance precautions (WP013 00).



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b. Lubricate new packings with petrolatum.

c. Install packing (6, figure 1) on nipple (5) and install nipple.

d. On 161735 AND UP, install strainer (9) and packing (10).

e. Install packings (7).

f. Position valve (15) and install bolts (14).

g. Connect tube to nipple (5).

h. Inspect and install coupling (8) (WP013 00).

i. Prepare mating surfaces of clamp (13) and support for electrical bond (A1-F18AC-LMM-000).

j. Install clamp (13), bolts (16) and nuts (11).

NOTE

Rotate clamps so that wire will clear center wing fuel quantity transmitter by 0.4 inch.

k. Install clamps (1 and 3), bolt (2) and nut (4), making sure wire in clamp (1) clears transmitter by 0.4 inch.

l. Inspect for and remove any foreign objects, then install door 76R or 76L (A1-F18AC-LMM-010). (QA)

m. Connect emergency and utility battery connectors (WP013 00).

n. Test refuel/defuel shutoff valve per substeps below:

(1) Refuel aircraft using electrical power (A1-F18AC-PCM-000).

(2) Apply electrical power (A1-F18AC-LMM-000).

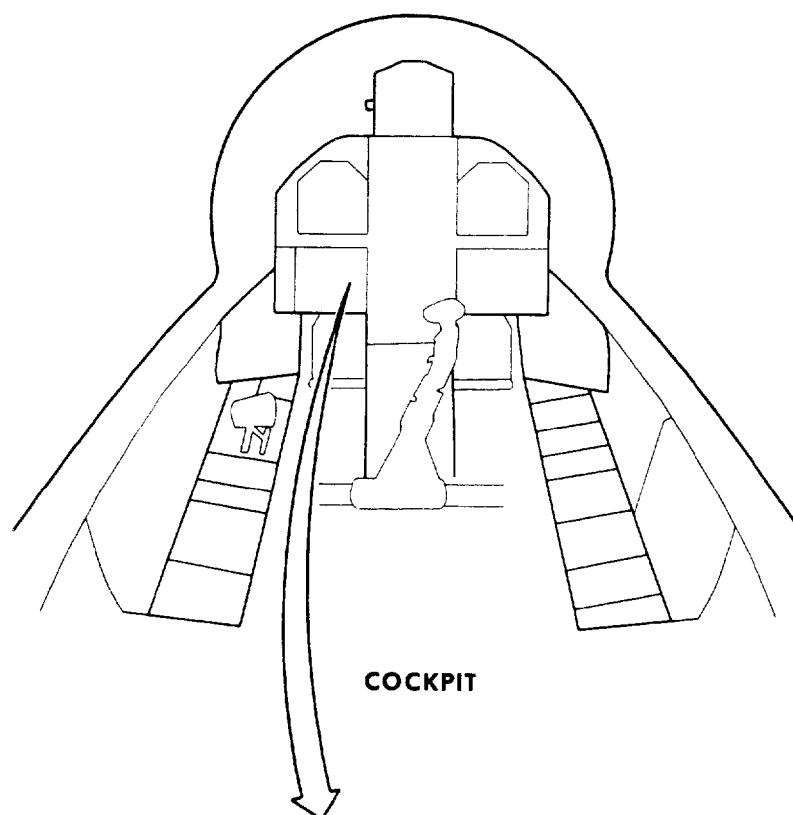
(3) On cockpit FUEL QTY indicator, set FUEL QTY selector to INTER WING.

(4) Monitor FUEL QTY indicator.

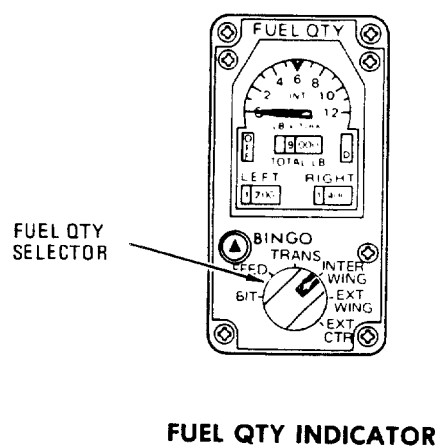
(5) Defuel aircraft (A1-F18AC-PCM-000) enough to verify decrease in wing fuel quantity.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



COCKPIT



FUEL QTY INDICATOR

Figure 1. Wing Refuel/Defuel Shutoff Valve (5VAU553 or 5VAV554) and Strainer (5FAU683 or 5FAV684) (Sheet 1)

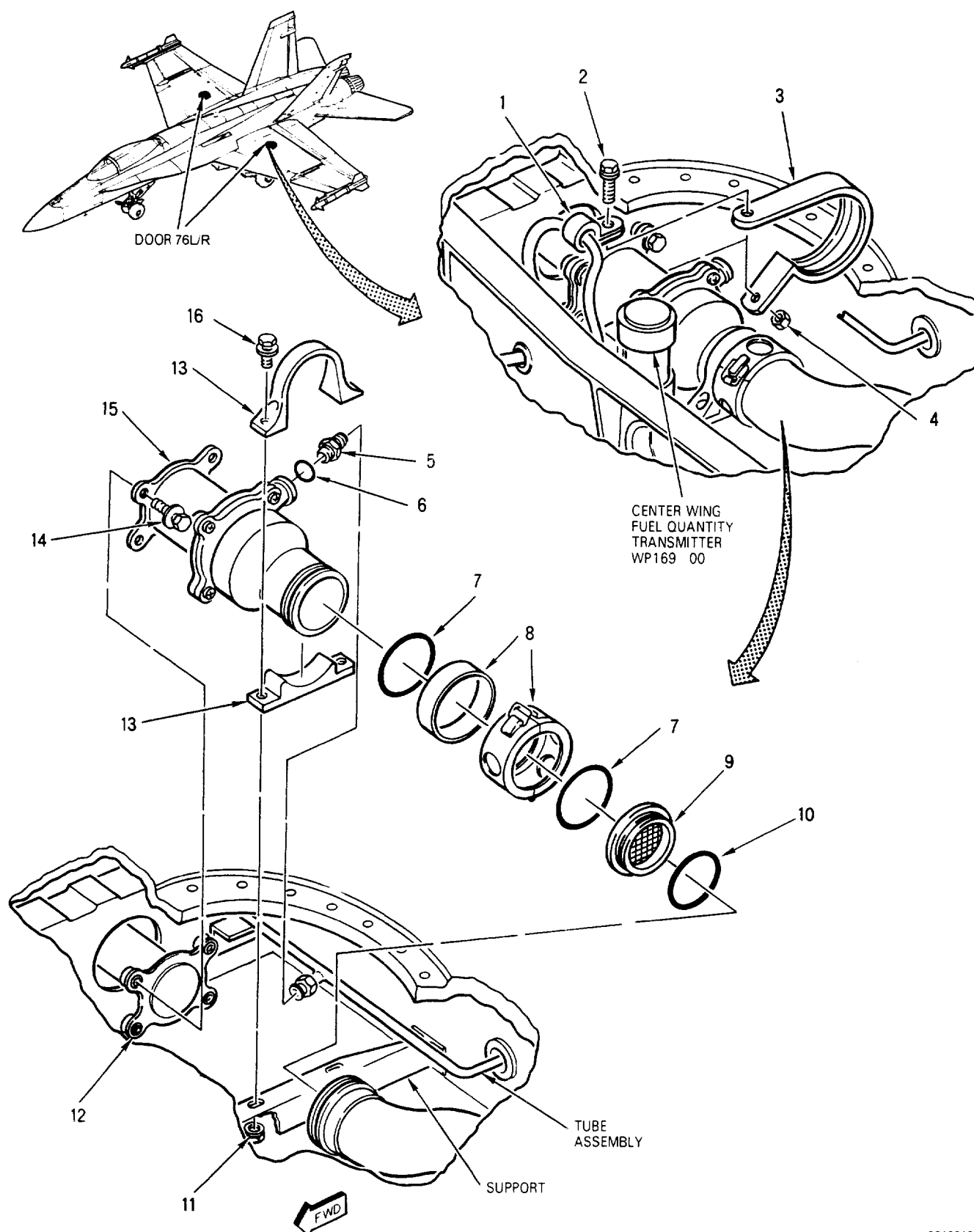


Figure 1. Wing Refuel/Defuel Shutoff Valve (5VAU553 or 5VAV554) and Strainer (5FAU683 or 5FAV684) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING REFUEL/DEFUEL SHUTOFF VALVE									
		(5VAU553 OR 5VAV554) AND									
		STRAINER (5FAU683 OR 5FAV684)									
1	MS25281-2	.	CLAMP						1	*	PAOZZ
2	VDP0002-5	.	BOLT, ASSEMBLED WASHER (06710)						1	*	PAOZZ
			(MCDONNELL SPEC 3M881V3-5)								
	111026-3-5	.	SEE ABOVE (80539)						1	*	PAOZZ
	T981-3-5	.	SEE ABOVE (97928)						1	*	PAOZZ
	SC2670-3-5	.	SEE ABOVE (06950)						1	*	PAOZZ
	D16175-10-5	.	SEE ABOVE (08524)						1	*	PAOZZ
3	MS25281-R32	.	CLAMP (SUPERSEDES MS25281-32)						1		PAOZZ
4	NAS129IC3M	.	NUT						1		PAOZZ
5	7M637BD-6D	.	NIPPLE (76301)						1		PAOZZ
6	MS29512-06	.	PACKING						1		PAOZZ
7	MS29513-226	.	PACKING						2		PAOZZ
8	W901K32DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-32D) (INCLUDES SLEEVE)								
	14J12-32A	.	SEE ABOVE (24984)						1		PAOZZ
	W901P32DE	.	SEE ABOVE (79326) (MCDONNELL						1	*	PAOZZ
			SPEC 7M550-32D) (INCLUDES								
			SLEEVE)								
9	74A583167-1005	.	STRAINER - FUEL SYSTEM, WING						1	A	PAOZZ
			TANK (STRAINER) (76301)								
			(5FAU683 OR 5FAV684)								
10	MS29513-132	.	PACKING						1	A	PAOZZ
11	NAS129IC3M	.	NUT						2		PAOZZ
12	MS21209F4-15	.	INSERT						4		-
13	NAS1787A32	.	CLAMP						1		PAOZZ
14	VDP0001-4	.	BOLT, ASSEMBLED WASHER						4	*	PAOZZ
			(06710) (MCDONNELL SPEC								
			3M881V4-4)								
	111026-4-4	.	SEE ABOVE (80539)						4	*	PAOZZ
	T981-4-4	.	SEE ABOVE (97928)						4	*	PAOZZ
	SC2670-4-4	.	SEE ABOVE (06950)						4	*	PAOZZ
	D16175-12-4	.	SEE ABOVE (08524)						4	*	PAOZZ
15	716300-211	.	VALVE, STOP CHECK - LIFT						1	*	PAOZZ
			SHUTOFF, REFUEL/DEFUEL								
			(WING REFUEL/DEFUEL								
			SHUTOFF VALVE) (96124)								
			(MCDONNELL SPEC								
			74-580055-211) (5VAU553								
			OR 5VAV554)								
	41000	.	SEE ABOVE (04192) (MCDONNELL SPEC						1	*	PAOZZ
			74-580055-205)								
16	VDP0002-9	.	BOLT, ASSEMBLED WASHER						2	*	PAOZZ
			(06710) (MCDONNELL SPEC								
			3M881V3-9)								
	111026-3-9	.	SEE ABOVE (80539)						2	*	PAOZZ
	T981-3-9	.	SEE ABOVE (97928)						2	*	PAOZZ
	SC2670-3-9	.	SEE ABOVE (06950)						2	*	PAOZZ
	D16175-10-9	.	SEE ABOVE (08524)						2	*	PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Wing Refuel/Defuel Shutoff Valve (5VAU553 or 5VAV554) and Strainer (5FAU683 or 5FAV684) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161735 & UP	F/A-18A/B

Figure 1. Wing Refuel/Defuel Shutoff Valve (5VAU553 or 5VAV554) and Strainer (5FAU683 or 5FAV684) (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

WING HIGH LEVEL REFUEL/DEFUEL PILOT VALVE
5VAU573 OR 5VAV574)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Integrated Flight Controls	A1-F18AC-570-300
Leading Edge Flap and Servo Valve or Shaft or Connecting Link - 161353 THRU 161519 BEFORE F/A-18 AFC 27	WP035 00
Leading Edge Flap and Servo Valve or Shaft or Connecting Link - 161353 THRU 161519 AFTER F/A-18 AFC 27	WP036 01
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000








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Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574), Figure 1	5

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 27	-	Leading Edge Flap/Control Stick Changes (ECP MDA F/A-18-0044)	1 Jan 87	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
 Bolt	NAS673V13
 Clamp	NMC ST9M529-4
 Clamp	NMC ST9M529-6
External Electrical Power Source	-
 Nut	NAS1291C3M
 Spacer	NAS43DD3-32
Torque Wrench, 0 to 120 Inch-Pounds	-
 Washer (2)	AN960JD10L
 TEMPORARILY INSTALLED ON 161353 THRU 161724.	

Materials Required

Nomenclature	Specification or Part Number
Cheesecloth	CCC-C-440, Type 1, Class 1 (CAGE 81348)
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)
Packing (2)	MS29512-04
Packing (2)	MS29512-06
Packing (14)	NAS1523AA4H
Petrolatum, Technical	VV-P-236 (CAGE 81349)
Sealing Compound	MIL-S-22473, Grade C (CAGE 81348)
Sealing Primer	MIL-S-22473, Grade T (CAGE 81349)

NOTE

This procedure is typical for left or right wing high level refuel/defuel pilot valve.

1. REMOVAL.

NOTE

Wing will not always defuel with failed pilot valve.

a. Defuel wing per substeps below:

(1) Do or observe defueling precautions (A1-F18AC-PCM-000).

(2) Apply external electrical power (A1-F18AC-LMM-000).

(3) On cockpit FUEL QTY indicator, set FUEL QTY selector to INTER WING (figure 1).

(4) Monitor FUEL QTY indicator.

(5) Defuel aircraft (A1-F18AC-PCM-000) until LEFT and RIGHT counters on FUEL QTY indicator displays 0000.

(6) Remove external electrical power (A1-F18AC-LMM-000).

b. Drain residual wing fuel (A1-F18AC-PCM-000).

c. Do or observe applicable fuel tank maintenance precautions (WP013 00).

d. If removing left wing high level refuel/defuel pilot valve, do substeps below:

(1) On 161353 THRU 161519 BEFORE F/A-18 AFC 27, remove shaft and connecting link (A1-F18AC-570-300, WP035 00).

(2) On 161520 AND UP; ALSO 161353 THRU 161519 AFTER F/A-18 AFC 27, remove right leading edge flap servo valve and drive unit, shaft and connecting link (A1-F18AC-570-300, WP036 01).

(3) Remove bolt (11, figure 1, detail A), attaching parts, and clamps (10 and 12) from wire bundle.

(4) Disconnect plug (5P-M036) and position wire bundle away from cover (8) area.

e. If removing right wing high level refuel/defuel pilot valve, do substeps below:

(1) Remove door 34R and 113R (A1-F18AC-LMM-010).

(2) Remove bolts (15 and 16, figure 1, detail A) and attaching parts, spacer (14), and clamps (13).

(3) Disconnect plug (5P-N040) and position wire bundle away from cover (8) area.

f. Do or observe applicable fuel tank maintenance precautions (WP013 00).

g. Remove bolts (6) and attaching parts, packings (7) and cover (8).

NOTE

Install clamps to prevent nuts on tubes from sliding down tubes during removal.

h. On 161353 THRU 161724, install clamps (NMC ST9M529-4 and NMC ST9M529-6), bolt (NAS673V13), washers (AN960JD10L), spacer (NAS43DD3-32) and nut (NAS1291C3M) on tubes 1.5 ± 0.25 inches behind nuts.



To prevent damage to tubes, nipples must be held with a wrench to prevent turning.

i. Disconnect tubes from nipples (18 and 19).

j. Loosen outboard bolts (5), remove inboard bolts (5) and slide bracket (2) out with pilot valve (1).

k. Remove bolts (21, detail B) and bracket (2).

l. Remove nipples (18 and 19) and packings (17 and 20).

m. Remove plugs (22 and 23) and packings (17 and 20).

n. Cover door 34R and 113R or 34L to prevent contamination.

2. INSTALLATION.

a. Do or observe applicable fuel tank maintenance precautions (WP013 00).



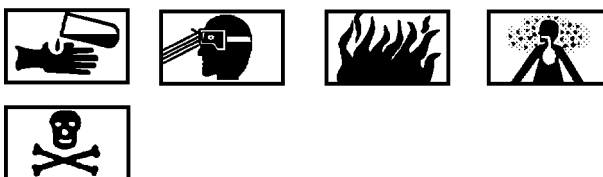
Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. Install packings (17 and 20, figure 1, detail B) and plugs (22 and 23).

d. Install packings (17 and 20) and nipples (18 and 19). Seal nipples (18 and 19) per substeps below:



Isopropyl Alcohol

3

(1) Clean threads of nipples (18 and 19) with cheesecloth moistened in isopropyl alcohol. Wipe threads with clean, dry cheesecloth before isopropyl alcohol evaporates. Repeat procedure until no visible contamination remains.



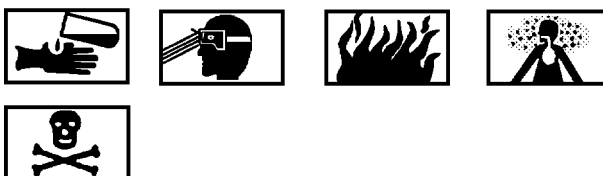
Sealing Primer

4

(2) Apply sealing compound primer to threads of nipples (18 and 19) mating with pilot valve (1). Allow primer to air dry for 15 minutes.

NOTE

Nipples must be installed in pilot valve within 5 minutes of applying sealing compound to threads of nipples.



Sealing Compound

5

(3) Apply sealing compound to threads of nipples (18 and 19) mating with pilot valve and install in pilot valve (1) within 5 minutes of applying sealing compound to threads. Allow sealing compound to cure 2 hours.

e. Prepare mating surfaces of pilot valve (1) and bracket (2) for electrical bond (A1-F18AC-LMM-000).

f. Install pilot valve (1) on bracket (2) with bolts (21).

g. Prepare mating surfaces of brackets and bracket (2) for electrical bond (A1-F18AC-LMM-000).

h. Position pilot valve (1) with bracket (2) on bracket using guide pins, then install bolts (5).

i. Connect tubes.

j. On 161353 THRU 161724, remove bolt (NAS673V13), nut (NAS1291C3M), washers (AN960JD10L), spacer (NAS43DD3-32) and clamps (NMC ST9M529-4 and NMC ST9M529-6) from tubes.

k. Install cover (8) and install bolts (6) with washers directly under bolt heads and packings (7) next to washers. Torque bolts (6) 50 to 70 inch-pounds. (QA)

l. Remove tag from aircraft external power receptacle.

m. On left wing, do substeps below:

(1) Connect plug (5P-M036).

(2) Install clamps (10 and 12, detail A), bolt (11) and washers.

(3) Connect utility and emergency battery connectors (WP013 00).

(4) Refuel aircraft using electrical power (A1-F18AC-PCM-000).

(5) Inspect cover (8) for leaks.

(6) On 161353 THRU 161519 BEFORE F/A-18 AFC 27, install connecting link and shaft (A1-F18AC-570-300, WP035 00)

(7) On 161520 AND UP; ALSO 161353 THRU 161519 AFTER F/A-18 AFC 27, install right leading edge flap servo valve and drive unit, shaft and connecting link (A1-F18AC-570-300, WP036 01).

n. On right wing, do substeps below:

(1) Connect plug (5P-N040).

(2) Install clamps (13, figure 1, detail A) on wire bundle and wing lock control cable and install bolts (15 and 16), attaching parts and spacer (14).

(3) Connect utility and emergency battery connectors per WP013 00.

(4) Refuel aircraft using electrical power (A1-F18AC-PCM-000).

(5) Inspect cover (7) area for leaks.

o. Install door 34L or 34R and 113R (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

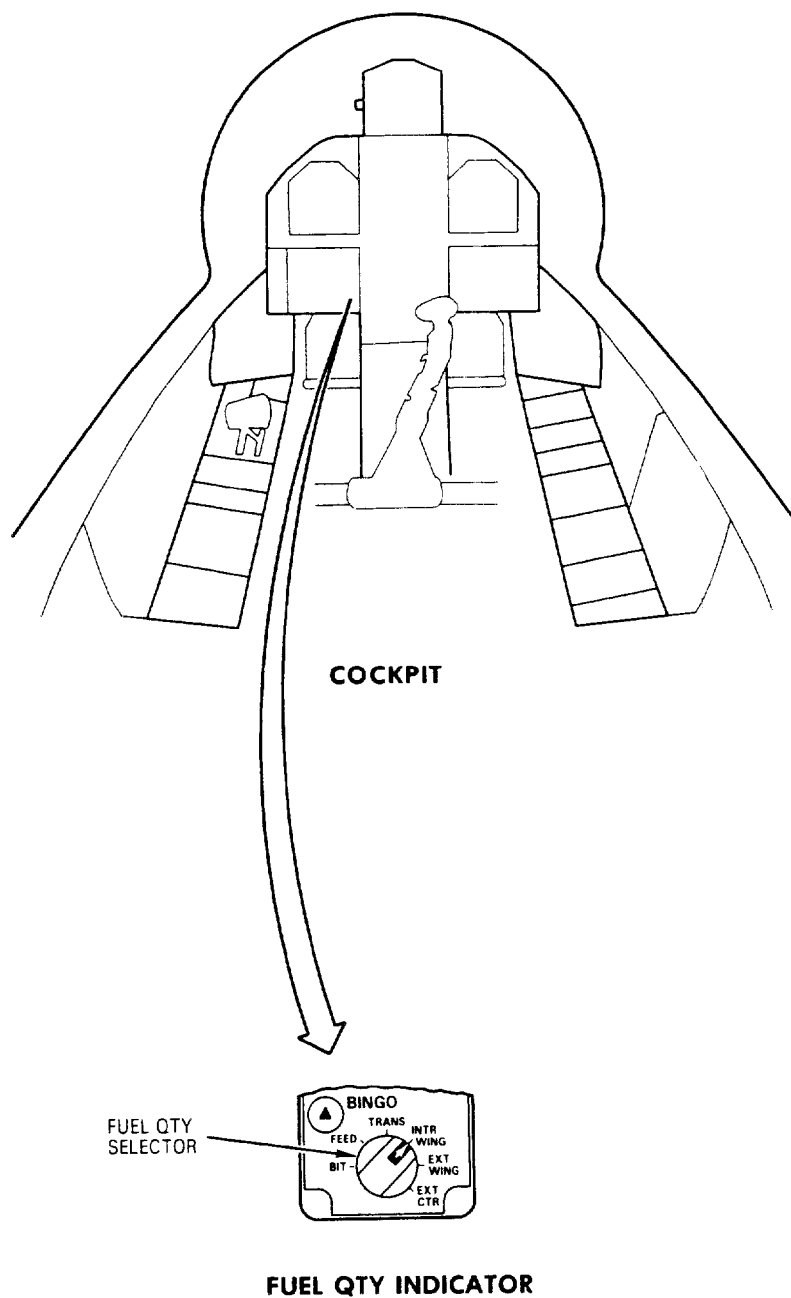
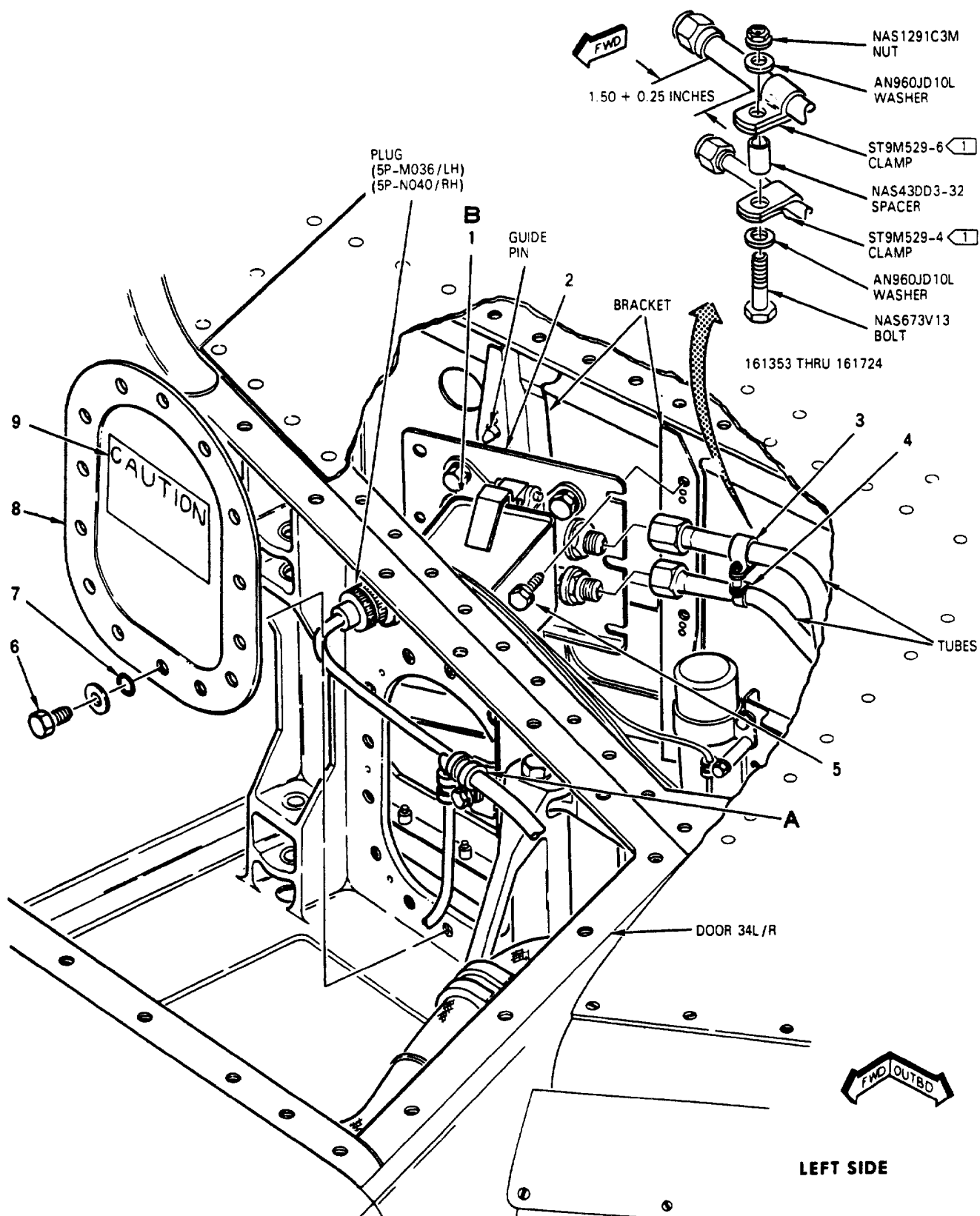
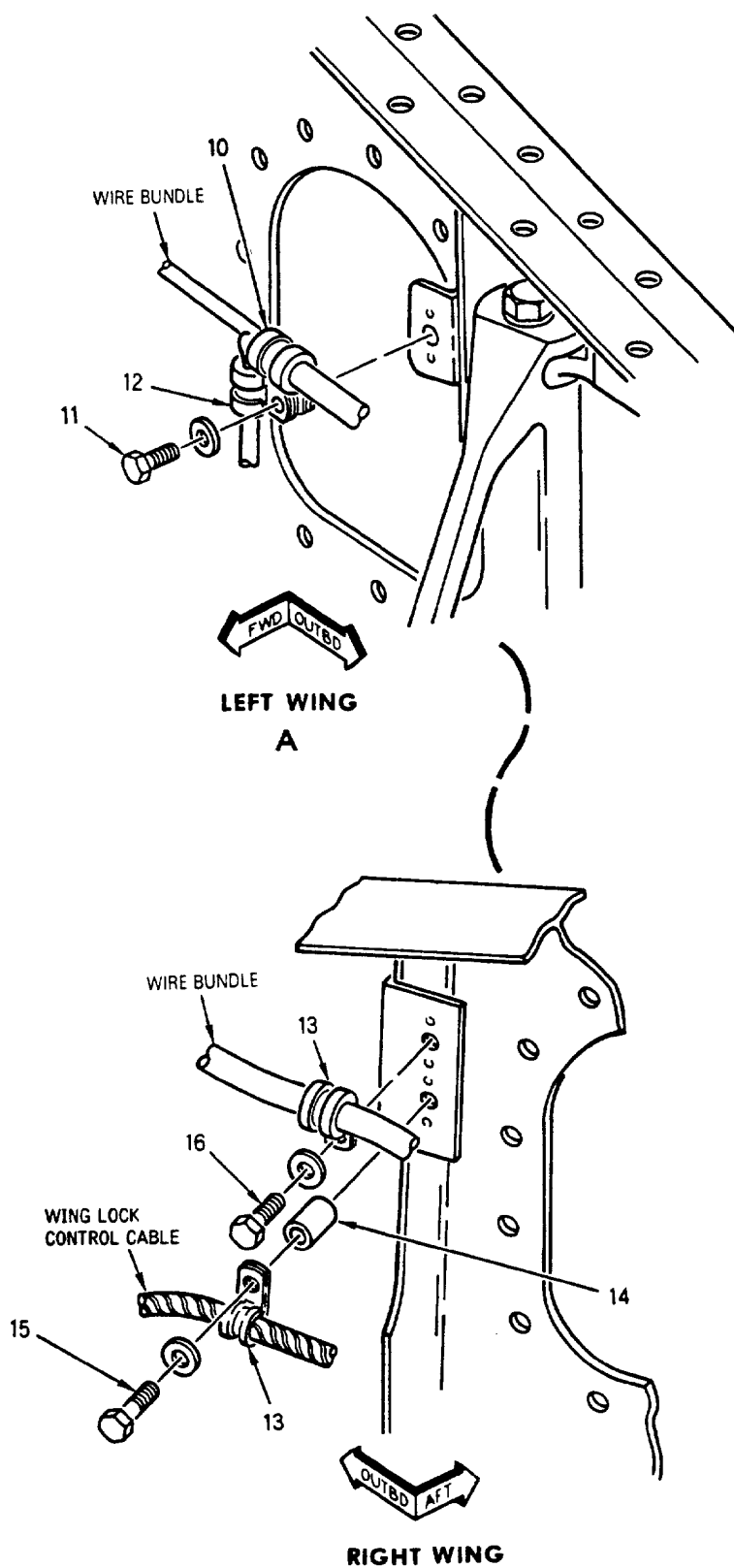


Figure 1. Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574) (Sheet 1)



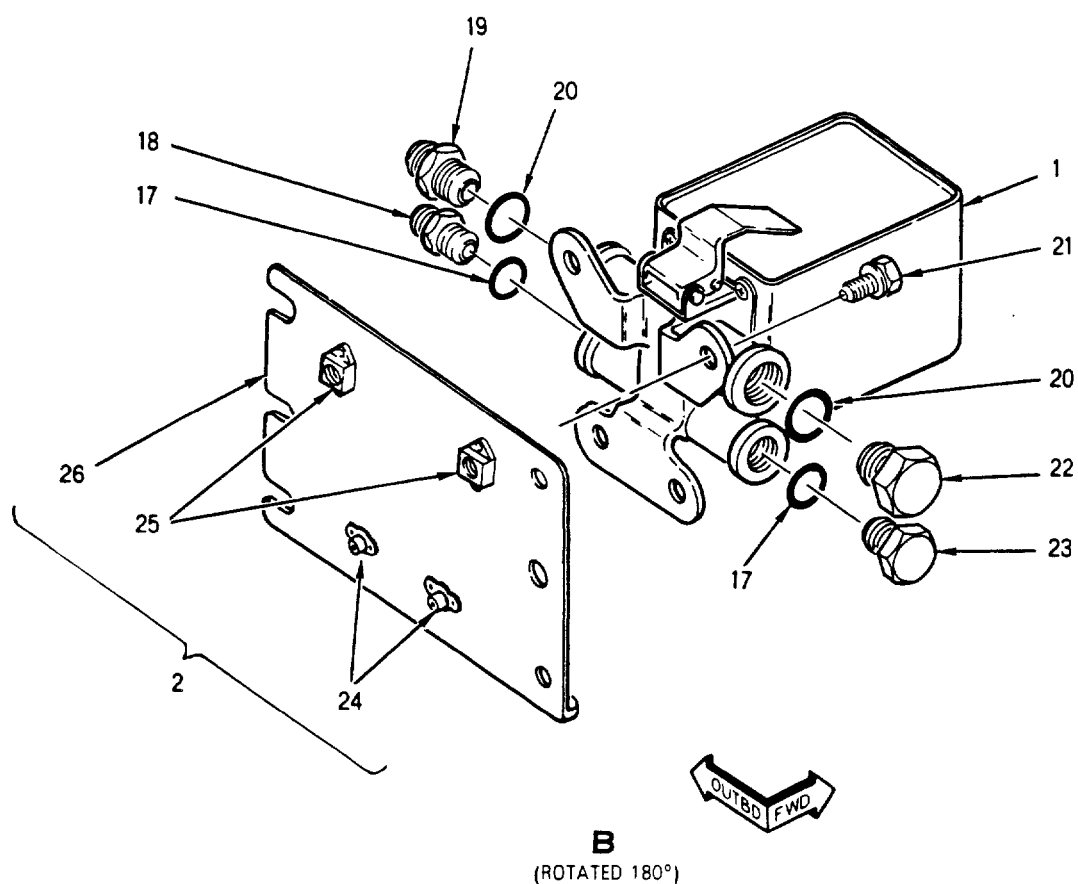
06200102

Figure 1. Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574) (Sheet 2)



06200103

Figure 1. Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574) (Sheet 3)



LEGEND

- 1 ON 161353 THRU 161724.
CLAMPS INSTALLED TO PREVENT
TUBE CONNECTOR FROM SLIDING
INTO WING. CLAMPS SHOULD
BE REMOVED AFTER CONNECTING
TUBES.

06200104

Figure 1. Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING HIGH LEVEL REFUEL/DEFUEL									
		PILOT VALVE (5VAU573 OR 5VAV574)									
1	716500-209	.	VALVE, FLUID CONTROL - PILOT,						1	*	PAOZZ
			REFUEL/DEFUEL, HIGH LEVEL								
			(WING HIGH LEVEL REFUEL/DEFUEL								
			PILOT VALVE) (96124) (MCDONNELL								
			SPEC 74-580055-207) (5VAU573								
			OR 5VAV574)								
	41100-1	.	SEE ABOVE (04192) (MCDONNELL						1	*	PAOZZ
			SPEC 74-580055-201)								
2	74A583151-1003	.	BRACKET ASSEMBLY - PILOT VALVE,						1		XBOOO
			LEVEL CONTROL, INBD, WING								
			(76301) (LEFT WING) (SUPERSEDES								
			74A583151-1001)								
	74A583151-1004	.	BRACKET ASSEMBLY - PILOT VALVE,						1		XBOOO
			LEVEL CONTROL, INBD,								
			WING (76301) (RIGHT WING)								
			(SUPERSEDES 74A583151-1002)								
3	NMC-ST9M529-6	.	CLAMP, LOOP (03296) (MCDONNELL						1		PAOZZ
			SPEC ST9M529-6)								
4	NMC-ST9M529-4	.	CLAMP, LOOP (03296) (MCDONNELL						1		PAOZZ
			SPEC ST9M529-4)								
	NAS673V13	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
	NAS43DD3-32	.	SPACER (AP)						1		PAOZZ
	NAS1291C3M	.	NUT (AP)						1		PAOZZ
5	VDP0002-3	.	BOLT, ASSEMBLED WASHER (06710)						4	*	PAOZZ
			(MCDONNELL SPEC 3M881V3-3)								
	111026-3-3	.	BOLT, ASSEMBLED WASHER (80539)						4	*	PAOZZ
			(MCDONNELL SPEC 3M881V3-3)								
	T981-3-3	.	BOLT, ASSEMBLED WASHER (97928)						4	*	PAOZZ
			(MCDONNELL SPEC 3M881V3-3)								
	SC2670-3-3	.	BOLT, ASSEMBLED WASHER (06950)						4	*	PAOZZ
			(MCDONNELL SPEC 3M881V3-3)								
	D16175-10-3	.	SEE ABOVE (08524)						4	*	PAOZZ
6	VS3207-4-6	.	BOLT, SHEAR (92215) (MCDONNELL						14	*	PAOZZ
			SPEC ST3M731-4-6)								
	SC2663-4-6	.	BOLT, SHEAR (06950) (MCDONNELL						14	*	PAOZZ
			SPEC ST3M731-4-6)								
	PBF1264-4-6	.	SEE ABOVE (27624)						14	*	PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 6)						14		PAOZZ
7	NAS1523AA4H	.	PACKING						14		PAOZZ
8	74A110850-2005	.	COVER ASSY (76301)						1		XBOOG
9	74A890109-2001	.	PLATE, INSTRUCTION - LE FLAP						1		MDOZZ
			DRIVE (CAUTION) (76301)								
10	MS21919WDG5	.	CLAMP						1		PAOZZ
11	NAS673V3	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
12	MS21919WDG3	.	CLAMP						1		PAOZZ
13	MS21919WDG5	.	CLAMP						2		PAOZZ
14	NAS42DD6-12	.	SPACER						1		PAOZZ
15	NAS673V6	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 15)						1		PAOZZ
16	NAS673V3	.	BOLT						1		PAOZZ

Figure 1. Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	AN960JD10L	.	WASHER (USE WITH INDEX 16)						1		PAOZZ
17	MS29512-04	.	PACKING						2		PAOZZ
18	7M637BD-4D	.	NIPPLE (76301)						1		PAOZZ
19	7M637BD-6D	.	NIPPLE (76301)						1		PAOZZ
20	MS29512-06	.	PACKING						2		PAOZZ
21	NAS674V4	.	BOLT						4		PAOZZ
	VDP0001-4	.	BOLT, ASSEMBLED WASHER (06710)						4	*	PAOZZ
			(MCDONNELL SPEC 3M881V4-4)								
	111026-4-4	.	SEE ABOVE						4	*	PAOZZ
	T981-4-4	.	SEE ABOVE						4	*	PAOZZ
	SC2670-4-4	.	SEE ABOVE						4	*	PAOZZ
	D16175-12-4	.	SEE ABOVE (08524)						4	*	PAOZZ
22	AN814-6D	.	PLUG						1		PAOZZ
23	AN814-4D	.	PLUG						1		PAOZZ
24	MF50591-4-2	.	NUT, PLATE (15653) (MCDONNELL						2	*	PAOZZ
			SPEC T3M792-4-2)								
	MS20426AD3 #	.	RIVET (AP)						2		-
25	MS21060L4	.	NUT, PLATE						2		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
26	74A583151-2003	.	PLATE (76301) (L. WING)						1		MGOZZ
			(SUPERSEDES 74A583151-2001)								
	74A583151-2004	.	PLATE (76301) (R. WING)						1		MGOZZ
			(SUPERSEDES 74A583151-2002)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

Figure 1. Wing High Level Refuel/Defuel Pilot Valve (5VAU573 or 5VAV574) (Sheet 6)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

WING LOW LEVEL REFUEL/DEFUEL PILOT VALVE
(5VAU551 OR 5VAV552)

REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparations	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	1
Support Equipment Required	1
Wing Low Level Refuel/Defuel Pilot Valve (5VAU551 or 5VAV552), Figure 1	3

Record of Applicable Technical Directives

None

Support Equipment Required

NOTE

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-

This procedure is typical for left or right wing
low level refuel/defuel pilot valve.

1. REMOVAL.

NOTE

Materials Required

Wing will not always defuel with failed pilot
valve.

None

a. Defuel wing per substeps below:

(1) Do or observe defueling precautions (A1-F18AC-PCM-000).

(2) Apply external electrical power (A1-F18AC-LMM-000).

(3) On cockpit FUEL QTY indicator, set FUEL QTY selector to INTER WING (figure 1).

(4) Monitor FUEL QTY indicator.

(5) Defuel aircraft (A1-F18AC-PCM-000) until LEFT and RIGHT counters on FUEL QTY indicator displays 0000.

(6) Remove external electrical power (A1-F18AC-LMM-000).

b. Drain residual wing fuel (A1-F18AC-PCM-000).

c. Remove door 77R or 77L (A1-F18AC-LMM-010).

d. Observe applicable fuel tank maintenance precautions (WP013 00).

e. Remove foam (1, figure 1).

f. Disconnect tube from valve (2).

g. Remove bolts (3) and valve (2).

h. To prevent contamination, position door 77 over opening.

2. INSTALLATION.

a. Observe applicable fuel maintenance precautions (WP013 00).

b. Prepare mating surfaces of valve (2, figure 1) and bracket for electrical bonding (A1-F18AC-LMM-000).

c. Position valve (2) and install bolts (3).

d. Connect tube to valve (2).

e. Install foam (1).

f. Install door 77R or 77L (A1-F18AC-LMM-010).

g. Connect utility and emergency battery connectors (WP013 00).

h. Do valve check per substeps below:

(1) Refuel aircraft (A1-F18AC-PCM-000).

(2) Apply electrical power to aircraft (A1-F18AC-LMM-000).

(3) On cockpit FUEL QTY indicator, set FUEL QTY selector to INTER WING (figure 1).

(4) Monitor FUEL QTY indicator.

(5) Defuel aircraft (A1-F18AC-PCM-000) enough to verify decrease in wing fuel quantity.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

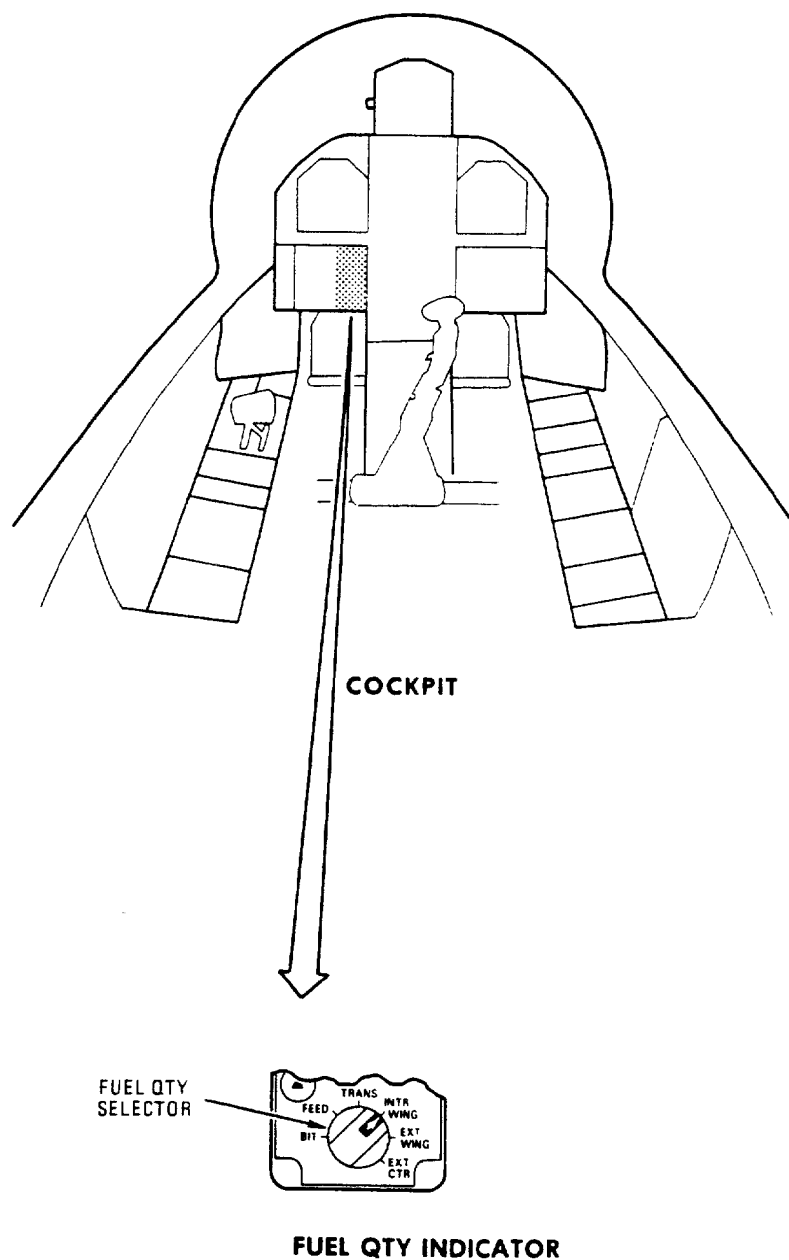
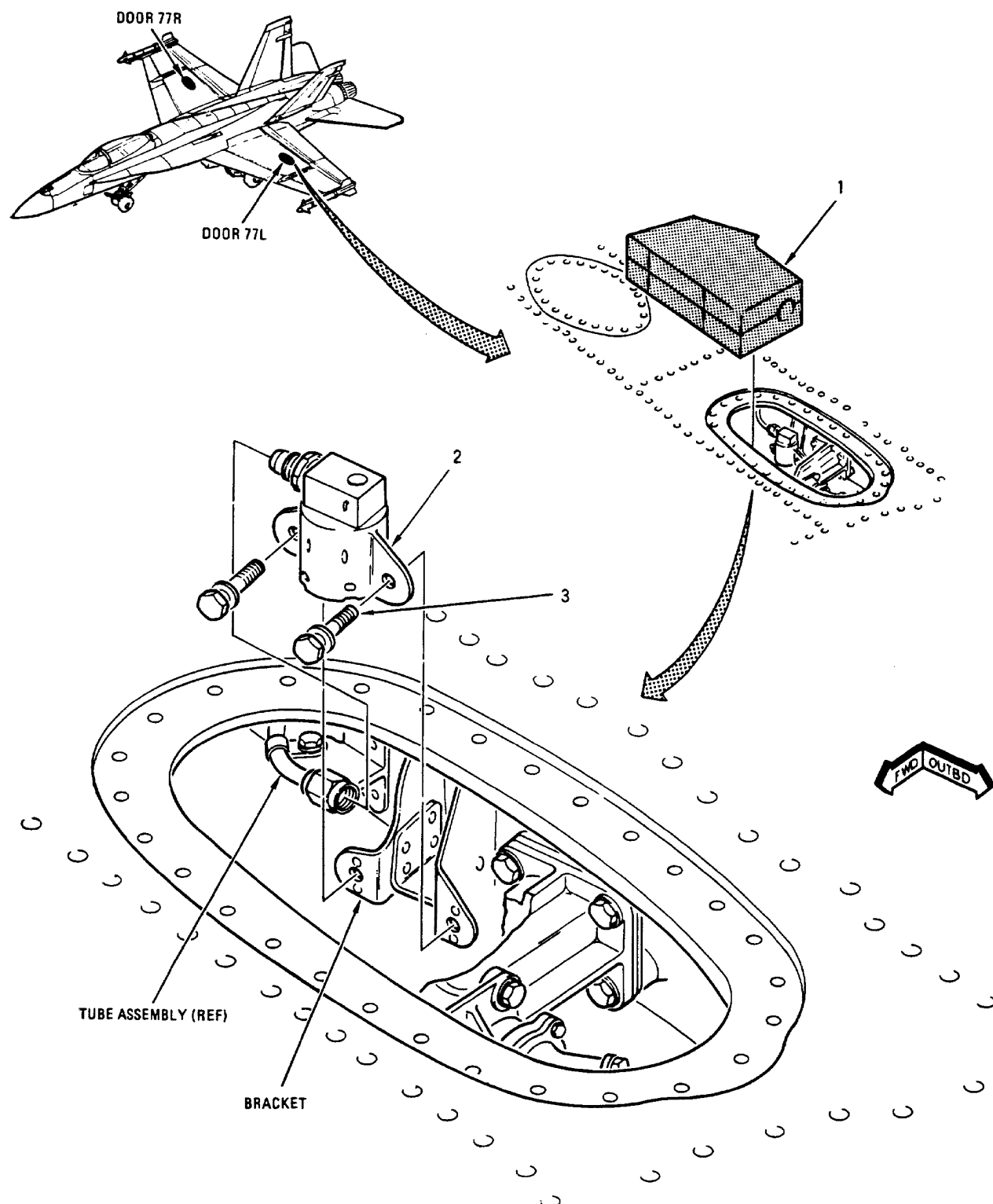


Figure 1. Wing Low Level Refuel/Defuel Pilot Valve (5VAU551 or 5VAV552) (Sheet 1)



06300102

Figure 1. Wing Low Level Refuel/Defuel Pilot Valve (5VAU551 or 5VAV552) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING LOW LEVEL REFUEL/DEFUEL									
		PILOT VALVE (5VAU551 OR									
		5VAV552)									
1	74A584001-2039	.	FOAM, EXPLOSION SUPPRESSION,						1		MDOZZ
			WING, INNER (76301)								
			(LEFT WING)								
	74A584001-2040	.	FOAM, EXPLOSION SUPPRESSION,						1		MDOZZ
			WING, INNER (76301)								
			(RIGHT WING)								
2	716400-211	.	VALVE, FLUID CONTROL -						1	*	PAOZZ
			REFUEL/DEFUEL, WING,								
			LOW LEVEL (WING LOW								
			LEVEL REFUEL/DEFUEL								
			PILOT VALVE) (96124)								
			(MCDONNELL SPEC 74-580055-209)								
			(5VAU551 OR 5VAV552)								
			(REPLACES 41200-1 & 41200-3)								
	41200-2	.	SEE-ABOVE (04192) (MCDONNELL						1	*	PAOZZ
			SPEC 74-580055-203)								
	41200-1	.	SEE ABOVE (USE UNTIL						1	*	PAOZZ
			EXHAUSTED)								
3	VDP0001-3	.	BOLT, ASSEMBLED WASHER						2	*	PAOZZ
			(06710) (MCDONNELL								
			SPEC 3M881V4-3)								
	111026-4-3	.	SEE ABOVE (80539)						2	*	PAOZZ
	T981-4-3	.	SEE ABOVE (97928)						2	*	PAOZZ
	SC2670-4-3	.	SEE ABOVE (06950)						2	*	PAOZZ
	D16175-12-3	.	SEE ABOVE (08524)						2	*	PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Wing Low Level Refuel/Defuel Pilot Valve (5VAU551 or 5VAV552) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
REFUELING MANIFOLD SCAVENGE JET EJECTOR
(5BAP598)
REFUEL/DEFUEL SYSTEM

Title	WP Number
Refueling Manifold Scavenge Jet Ejector - 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53	064 01
Refueling Manifold Scavenge Jet Ejector - 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	064 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

REFUELING MANIFOLD SCAVENGE JET EJECTOR
(5BAP598)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Refuel System Scavenge Test	WP003 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Refueling Manifold Scavenge Jet Ejector (5BAP598), Figure 1	3
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA F18-00055C1)	15 Jul 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA F18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29513-015
Packing (2)	MS29513-214
Packing	MS29513-329
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Remove bolts (5, detail A, figure 1) and attaching parts, as required, then remove web (6).
- c. Disconnect coupling (9, detail B) and tube (7).
- d. Remove ejector (11) and attaching parts.
- e. Remove spacer (13), elbow (16) and packings (10, 12, and 14).

2. INSTALLATION.

- a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

- b. Lubricate all new packings with petrolatum.
- c. Prepare mating surfaces of adapter (15, detail B, figure 1), spacer (13), and ejector (11) for electrical bonding (A1-F18AC-LMM-000).
- d. Install elbow (16) and packings (10, 12, and 14).
- e. Install spacer (13), ejector (11), and attaching parts. Seal ejector (11) bolt threads (WP013 00).
- f. Install coupling (9) and connect tube (7).
- g. Inspect and remove foreign objects from below baffle area. (QA)
- h. Install web (6, detail A) and bolts (5).
- i. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)
- j. Install no. 2 fuel tank access cover (WP005 00).
- k. Do fuel system scavenge test (A1-F18AC-460-200, WP003 00) and inspect for fuel leaks.

3. ILLUSTRATED PARTS BREAKDOWN.

- 4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

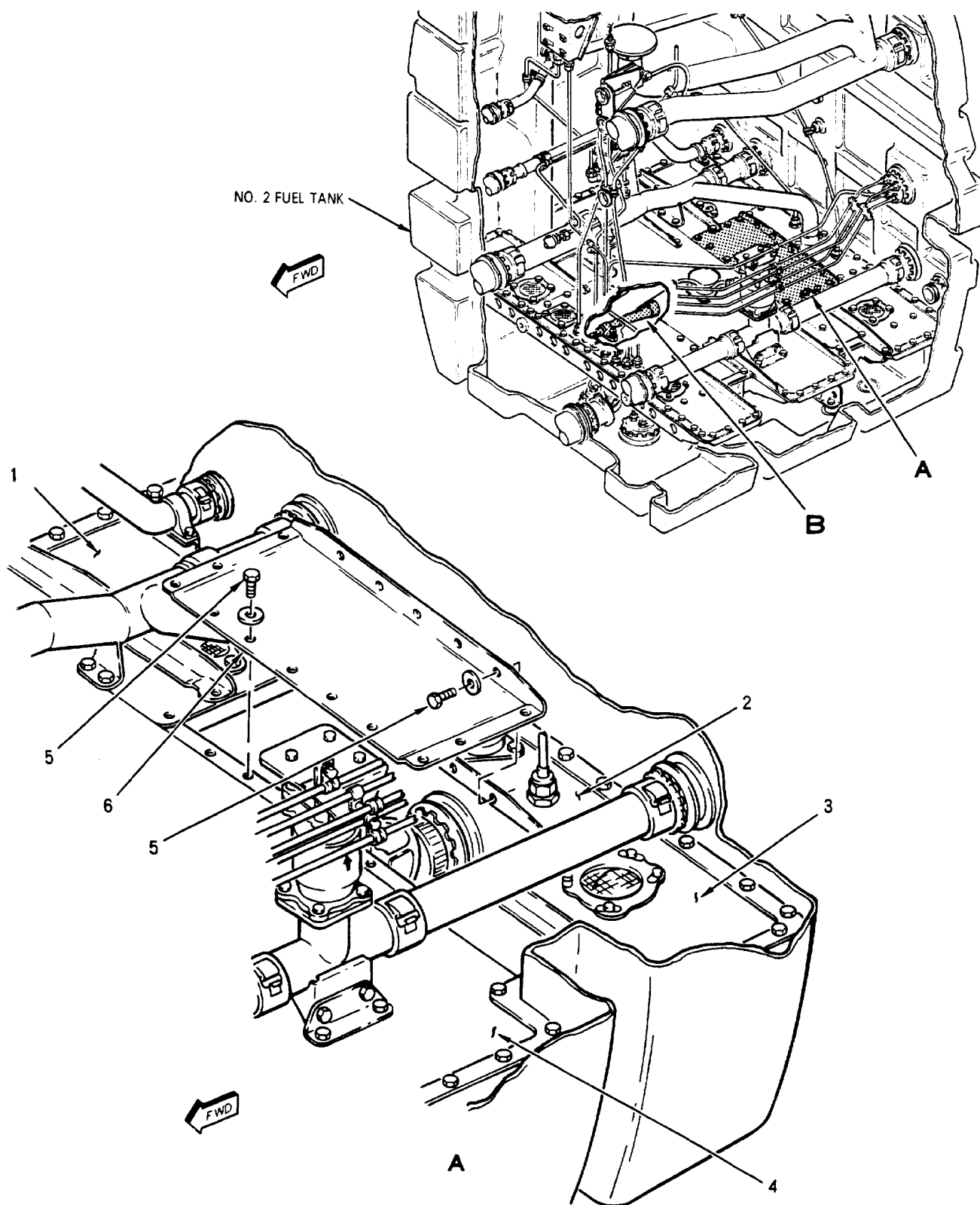


Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 1)

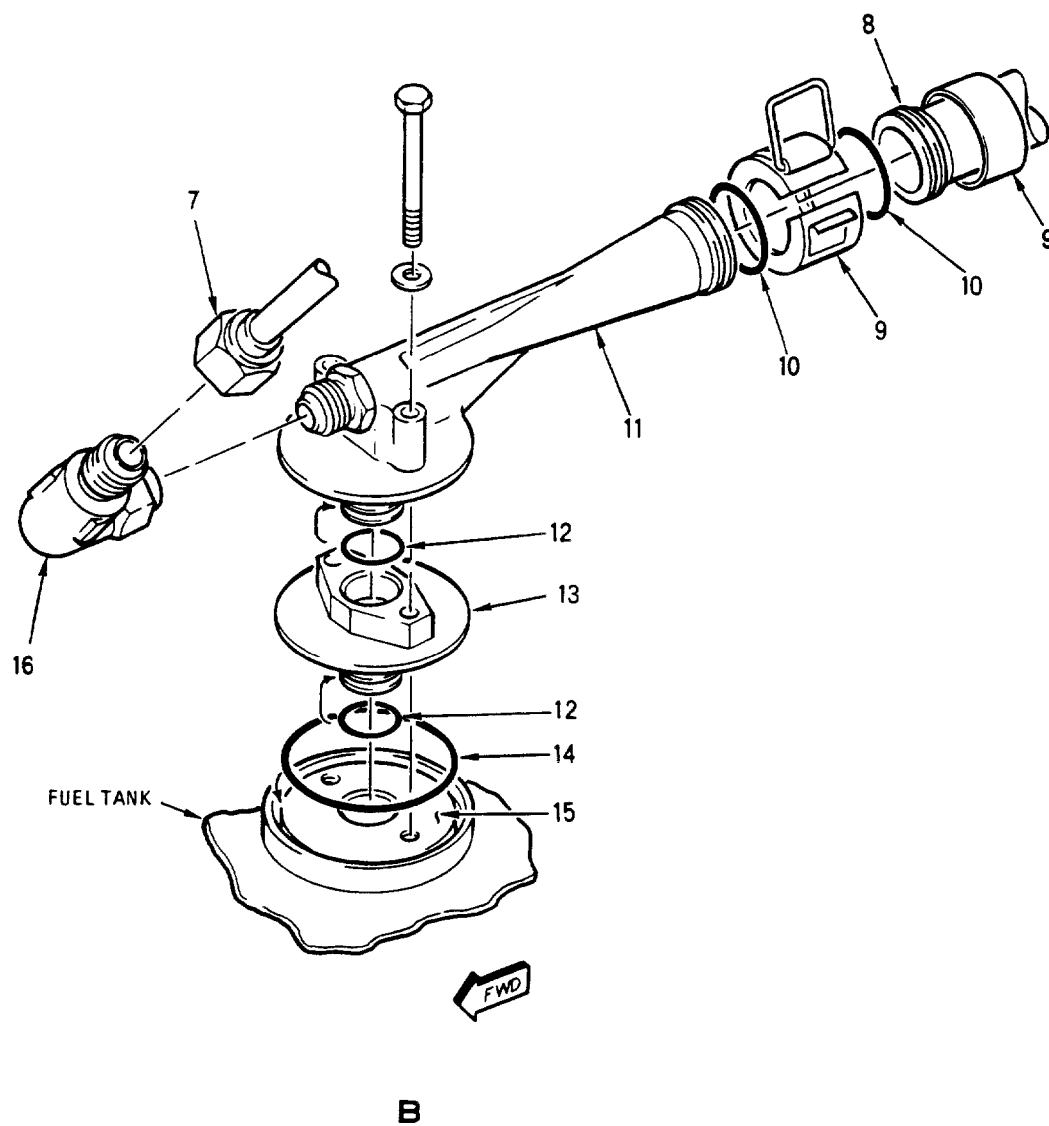


Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		REFUELING MANIFOLD SCAVENGE								
		JET EJECTOR (5BAP598)								
1	74A586204-2365	.	WEB ASSY - AFT, RH (76301)					1		XBOOO
			(FOR REPAIR SEE WP020 03)							
2	74A586204-2411	.	WEB ASSY (76301) (FOR					1		XBOOO
			REPAIR SEE WP020 03)							
3	74A586204-2431	.	WEB ASSY AFT, LH (76301)					1		XBOOO
			(FOR REPAIR SEE WP020 03)							
4	74A586204-2397	.	PANEL ASSY, CENTER (76301)					1		XBOOO
			(FOR REPAIR SEE WP020 03)							
5	NAS673V5	.	BOLT					AR		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 5)					AR		PAOZZ
6	74A586204-2415	.	WEB (76301)					1		MGOZZ
7	74A586274-1001	.	TUBE ASSEMBLY, METAL -					1		MGOZZ
			SCAV MOTIVE FL, Y406 TEE -							
			Y397 PUMP (76301)							
8	74A586237-1003	.	TUBE ASSEMBLY, SCAVENGE					1		XBOZZ
			PUMP (76301) (SUPERSEDES							
			74A586237-1001)							
9	W901K16DE	.	COUPLING, CLAMP, GROOVED					1		PAOZZ
			(79326) (MCDONNELL SPEC							
			7M765-16D) (INCLUDES SLEEVE)							
	14J12-16A	.	SEE ABOVE (24984)					1		PAOZZ
	W901F16DE	.	SEE ABOVE (79326) (MCDONNELL					1	*	PAOZZ
			SPEC 7M550-16D) (INCLUDES							
			SLEEVE)							
10	MS29513-214	.	PACKING					2		PAOZZ
11	2760101-101	.	EJECTOR, JET - REFUELING					1		PAOZZ
			MANIFOLD, SCAVENGE							
			(REFUELING MANIFOLD							
			SCAVENGE JET EJECTOR)							
			(92003) (MCDONNELL SPEC							
			74-580112-103) (5BAP598)							
	NAS673V2	.	BOLT (AP)					2		PAOZZ
	AN960JD10L	.	WASHER (AP)					2		PAOZZ
12	M529513-015	.	PACKING					2		PAOZZ
13	74A586296-2005	.	SPACER, PUMP - SINGLE POINT					1		XBOZZ
			SCAVENGE, TANK NO. 2							
			(76301) (SUPERSEDES							
			74A586296-2001)							
14	MS29513-329	.	PACKING					1		PAOZZ
15	74A586295-1001	.	ADAPTER - PUMP, SINGLE POINT					1		XBOGG
			SCAVENGE, TANK NO. 2 (76301)							
16	7M148V6	.	ELBOW (76301)					1		PAOZZ
	7M148DA6	.	ELBOW (76301)					1	*	PAOZZ
* ALTERNATE OR EQUIVALENT										
PARTS. (WP002 00)										

Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

REFUELING MANIFOLD SCAVENGE JET EJECTOR
(5BAP598)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161716 AND UP; ALSO 161353 THRU 161715
AFTER F18 AFC 53 AND F18 AFC 18

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Refuel System Scavenge Test	WP003 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Refueling Manifold Scavenge Jet Ejector (5BAP598), Figure 1	3
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F18-00055C1)	15 Jul 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
Packing (2)	MS29513-015
Packing (2)	MS29513-214
Packing	MS29513-329
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Remove tube (2, figure 1, detail B).
- c. Remove panel (1, detail A) and attaching parts.
- d. Remove coupling (7, detail C).
- e. Disconnect tube (4) from elbow (3).
- f. Remove ejector (5), spacer (10), and attaching parts.
- g. Remove elbow (3) from ejector (5).

2. INSTALLATION.

- a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

- b. Lubricate new packings with petrolatum.

- c. Install elbow (3, figure 1, detail C), handtight.

- d. Prepare mating surfaces of fuel tank cavity bulkhead support, spacer (10), and ejector (5) for electrical bonding (A1-F18AC-LMM-000).

- e. Install packings (9, 11 and 6).

- f. Install spacer (10), ejector (5), and attaching parts.

- g. Install coupling (7).

- h. Connect tube (4) to elbow (3) and tighten nut on elbow.

- i. Inspect for and remove foreign objects from below baffle area. (QA)

- j. Position panel (1, detail A) and install attaching parts.

- k. Install tube (2, detail B).

- l. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

- m. Install no. 2 fuel tank access cover (WP005 00).

- n. Do refuel system scavenge test (A1-F18AC-460-200, WP003 00) and inspect for fuel leaks.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

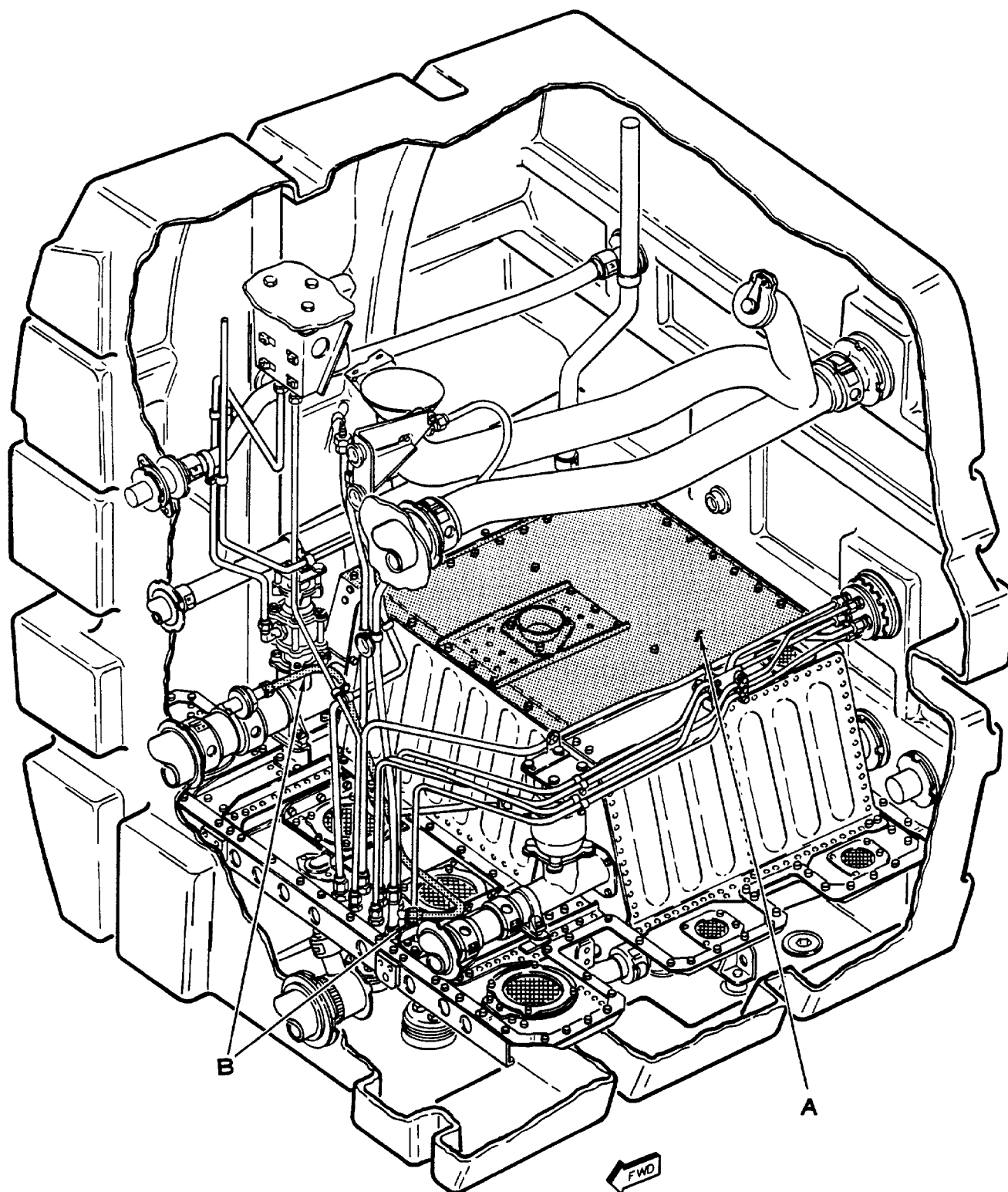


Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 1)

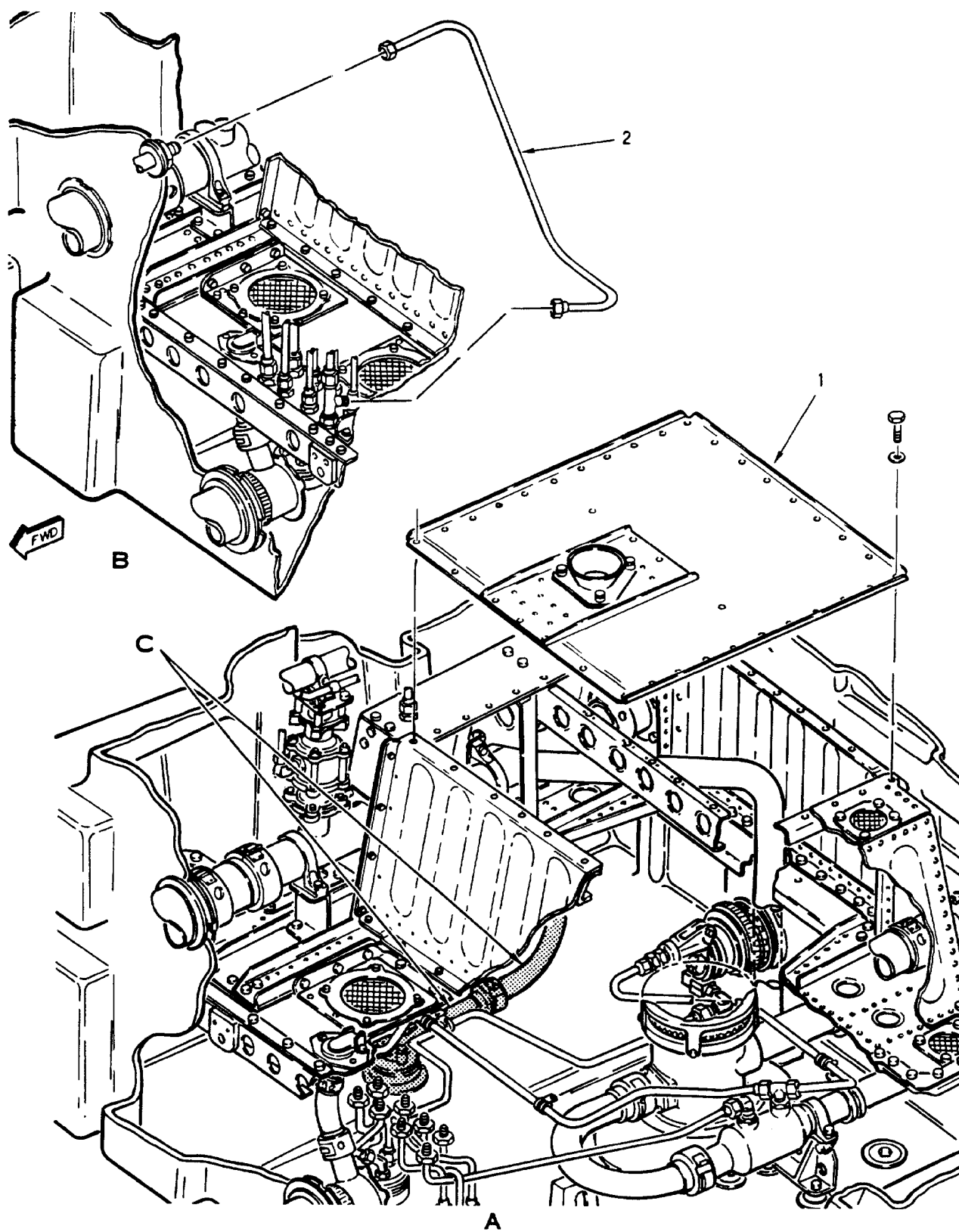


Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 2)

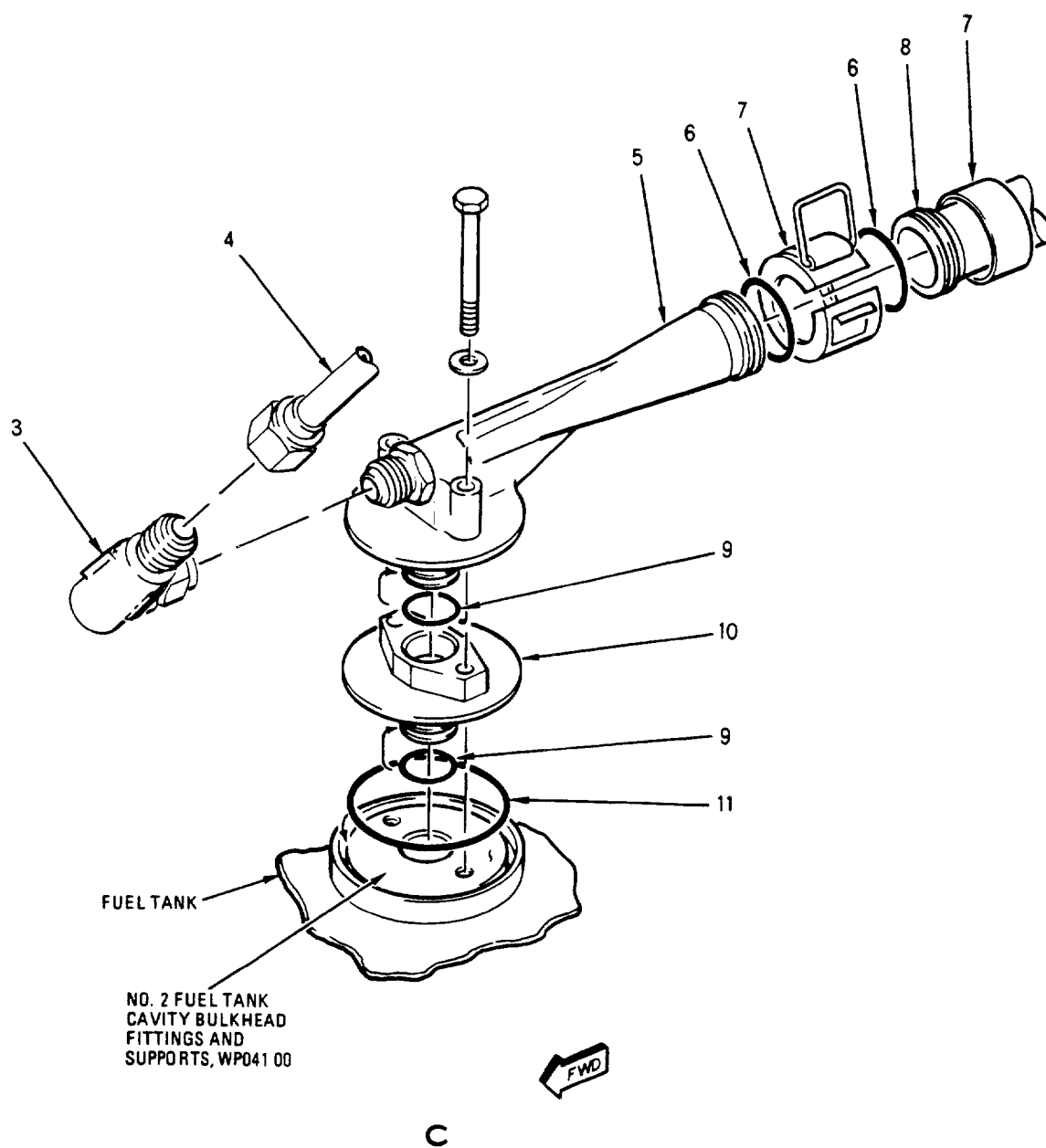


Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		REFUELING MANIFOLD SCAVENGE								
		JET EJECTOR (5BAP598)								
1	74A586247-1029	.	COVER ASSY (76301) (FOR REPAIR					1	A	XBOOO
			SEE WP020 05)							
	74A586247-1049	.	COVER ASSY (76301) (FOR REPAIR					1	B	XBOOO
			SEE WP020 05)							
	NAS673V4	.	BOLT (AP)					AR		PAOZZ
	AN960JD10L	.	WASHER (AP)					AR		PAOZZ
2	74A586299-1005	.	TUBE ASSEMBLY, METAL - SCAV MF,					1		MGOZZ
			Y406 TEE - Y397 PUMP (76301)							
			(SUPERSEDES 74A586299-1003)							
3	7M148V6	.	ELBOW, TUBE (76301)					1		PAOZZ
4	74A586274-1003	.	TUBE ASSEMBLY, METAL - SCAV					1		MGOZZ
			MOTIVE FL, Y406, TEE - Y397							
			PUMP (76301)							
5	2760101-101	.	EJECTOR, JET - REFUELING					1		PAOZZ
			MANIFOLD, SCAVENGE							
			(REFUELING MANIFOLD							
			SCAVENGE JET EJECTOR) (92003)							
			(MCDONNELL SPEC 74-580112-103)							
			(5BAP598)							
	NAS673V32	.	BOLT (AP)					2		PAOZZ
	AN960JD10L	.	WASHER (AP)					2		PAOZZ
6	MS29513-214	.	PACKING					2		PAOZZ
7	W901K16DE	.	COUPLING, CLAMP, GROOVED					1		PAOZZ
			(79326) (MCDONNELL SPEC							
			7M765-16D) (INCLUDES SLEEVE)							
	14J12-16A	.	SEE ABOVE (24984)					1		PAOZZ
	W901F16DE	.	SEE ABOVE (79326) (MCDONNELL					1	*	PAOZZ
			SPEC 7M550-16D) (INCLUDES							
			SLEEVE)							
8	74A586237-1009	.	TUBE ASSEMBLY, METAL					1		XBOZZ
			SCAVENGE PUMP (76301)							
9	MS29513-015	.	PACKING					2		PAOZZ
10	74A586296-2005	.	SPACER, PUMP - SINGLE POINT					1		XBOZZ
			SCAVENGE, TANK NO. 2 (76301)							
			(SUPERSEDES 74A586296-2001)							
11	MS29513-329	.	PACKING					1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161716 THRU 161761	F/A-18A/B
B	161924 & UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	F/A-18A/B

Figure 1. Refueling Manifold Scavenge Jet Ejector (5BAP598) (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**SCAVENGE CONTROL VALVE
(5VAD622)**

REFUEL/DEFUEL SYSTEM

Title	WP Number
Scavenge Control Valve, 161353 THRU 161528	WP065 01
Scavenge Control Valve, 161702 AND UP	WP065 02

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
SCAVENGE CONTROL VALVE (5VAD622)
REFUEL/DEFUEL SYSTEM
EFFECTIVITY: 161353 THRU 161528

Reference Material

Fuel System	A1-F18AC-460-200
Refuel System Scavenge Test	WP003 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a. Defuel aircraft (A1-F18AC-PCM-000).

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

c. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

d. Remove door 35R (A1-F18AC-LMM-010).

Materials Required

**Specification
or Part Number**

Nomenclature

Packing	M25988/1-908
Petrolatum, Technical	VV-P-236 (CAGE 81348)

e. Disconnect tube (4, figure 1) and remove valve (1).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

2

b. Lubricate new packing (3, figure 1) with petrolatum and install on valve (1).

c. Install valve (1) (with arrow on valve pointing aft) and connect tube (4).

d. Remove no power tag from external power receptacle.

e. Do refuel system scavenge test (A1-F18AC-460-200, WP003 00).

f. Install door 35R (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

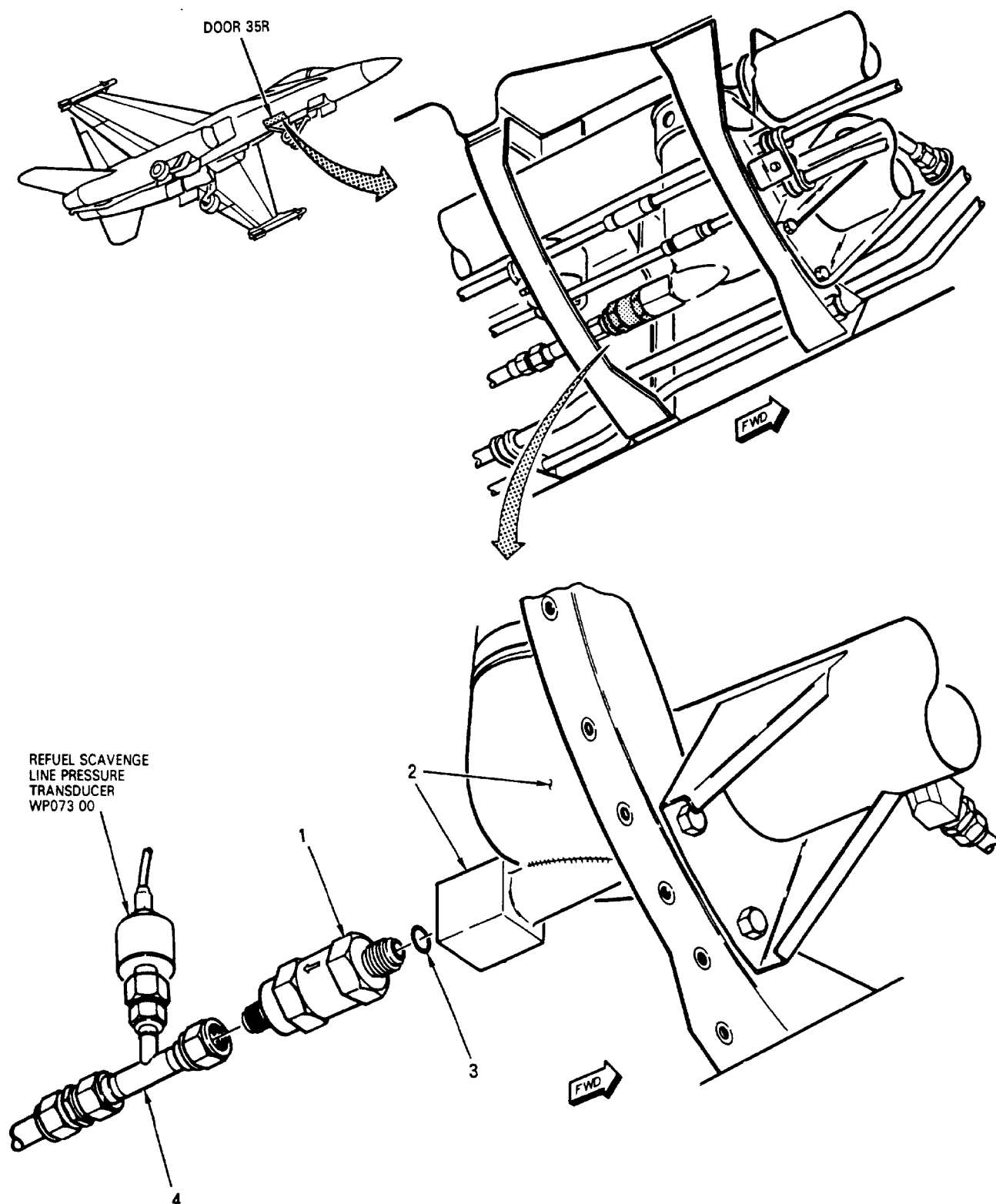


Figure 1. Scavenge Control Valve (5VAD622) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		SCAVENGE CONTROL									
		VALVE (5VAD622)									
1	0130010700-3	.	VALVE, CHECK - REFUEL/SCAVENGE						1		PAOZZ
			CONTROL (SCAVENGE CONTROL								
			VALVE) (83533) (MCDONNELL SPEC								
			74-580059-105) (5VAD622) (REPLACES								
			0130010700-1)								
	0130010700-1	.	SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
			74-580059-101) (5VAD622)								
			(USE UNTIL EXHAUSTED)								
2	74A580616-1009	.	TUBE ASSEMBLY - REFUEL,						1		PAOZZ
			TANK NO. 1 ENTRY (76301)								
			(REPLACES 74A580616-1005								
			AND 74A580616-1007)								
	74A580616-1007	.	SEE ABOVE (REPLACES 74A580616-1005)						1	*	PAOZZ
			(USE UNTIL EXHAUSTED)								
	74A580616-1005	.	SEE ABOVE (REPLACED BY						1	*	PAOZZ
			74A580616-1007 AND 74A580616-1009)								
			(USE UNTIL EXHAUSTED)								
3	M25988/1-908	.	PACKING						1		PAOZZ
4	74A583154-1001	.	TUBE ASSY, METAL, BRANCHED						1		PAOZZ
			REFUEL SCAVENGE (76301)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Scavenge Control Valve (5VAD622) (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
SCAVENGE CONTROL VALVE (5VAD622)
REFUEL/DEFUEL SYSTEM
EFFECTIVITY: 161702 AND UP

Reference Material

Fuel System	A1-F18AC-460-200
Refuel System Scavenge Test	WP003 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-08
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Defuel aircraft (A1-F18AC-PCM-000).
- b. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- c. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.
- d. Remove door 33 (A1-F18AC-LMM-010).
- e. Remove bolt (1, figure 1) and attaching part and clamp (2).

f. Disconnect tube (8) from nipple (3).

g. Disconnect tube (6) from valve (5) and remove reducer (7) and valve (5) together.

h. Remove reducer (7) from valve (5).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

2

b. Lubricate new packing (4, figure 1) with petrolatum.

c. Install packing (4) on valve (5).

d. Install reducer (7) on valve (5).

e. Connect valve (5), with reducer (7) to tube (6).

f. Connect tube (8) to nipple (3).

g. Install clamp (2), bolt (1) and attaching part.

h. Remove no power tag from external power receptacle.

i. Do refuel system scavenge test (A1-F18AC-460-200, WP003 00).

j. Install door 33 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

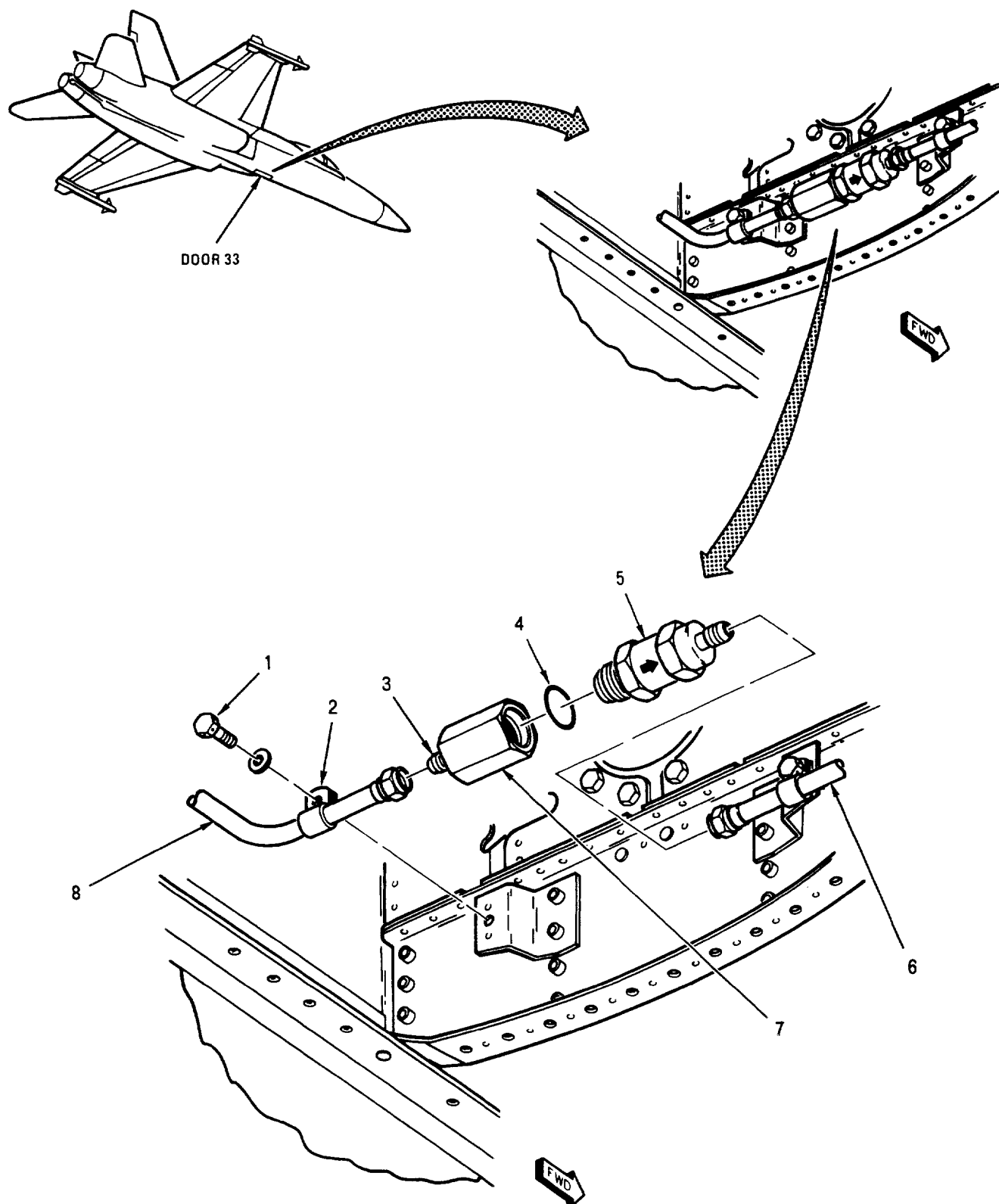


Figure 1. Scavenge Control Valve (5VAD622) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		SCAVENGE CONTROL VALVE (5VAD622)									
1	NAS673V4	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 1)						1		PAOZZ
2	NMC-ST9M529-6	.	LAMP (03296) (MCDONNELL SPEC ST9M529-6)						1		PAOZZ
3	7M637BD-6D	.	NIPPLE (76301)						1		PAOZZ
	MS28778-6	.	PACKING (USE WITH INDEX 3)						1		PAOZZ
4	MS29512-08	.	PACKING						1		PAOZZ
5	0130010700-3	.	VALVE, CHECK - REFUEL/SCAVENGE						1		PAOZZ
			CONTROL (SCAVENGE CONTROL VALVE) (83533) (MCDONNELL SPEC 74-580059-105) (5VAD622)								
6	74A580708-1001	.	TUBE ASSEMBLY, METAL - SCAVENGE,						1		MGOZZ
			Y356.149 (76301)								
7	74A580709-2001	.	REDUCER, TUBE - SCAVENGE						1		XBOZZ
			VALVE (76301)								
8	74A580707-1001	.	TUBE ASSEMBLY, METAL - PRESSURE						1		MGOZZ
			Y350.623 (76301)								

Figure 1. Scavenge Control Valve (5VAD622) (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
FUEL TANK DRAIN VALVES
REFUEL/DEFUEL SYSTEM

Reference Material

Line Maintenance Procedure	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Removal	2
Repair	2
Support Equipment Required	
Removal and Installation	1
Repair	2

Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Materials Required

Support Equipment Required		Materials Required	
Nomenclature	Part Number or Type Designation	Nomenclature	Specification or Part Number
		Packing (3)	MS29513-021
		Packing (4)	MS29513-026
Torque Wrench, 0 to 300 Inch-Pounds	-	Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Defuel aircraft (A1-F18AC-PCM-000).

WARNING

To prevent personal injury, do not stand directly under drain valve.

d. Drain residual fuel from drain valve (2, 5, 8, 11, 14, 17, or 20, figure 1) (A1-F18AC-PCM-000).

e. Remove drain valve (2, 5, 8, 11, 14, 17, or 20).

3. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

2

b. Lubricate new packing (1, 4, 7, 10, 13, 16 or 21, figure 1) with petrolatum and install on drain valve.

c. Prepare mating surface of drain valve (2, 5, 8, 11, 14, 17, or 20) and drain valve housing for electrical bond (A1-F18AC-LMM-000).

d. If installing new external tank drain valve (5), do substeps below:

(1) Install and torque external tank drain valve (5) 130 to 150 inch-pounds without packing (4) to groove threads in nylon patch.

(2) Remove external tank drain valve (5).

(3) Install packing (4).

(4) Install external tank drain valve (5) and torque 130 to 150 inch-pounds. (QA)

e. Install drain valve (2, 5, 8, 11, 14, 17, or 20).

f. Verify valve opens and closes.

g. Remove no power tag from external power receptacle.

h. Refuel aircraft (A1-F18AC-PCM-000).

i. Inspect for leaks.

4. REPAIR.**Support Equipment Required**

None

Materials Required

Nomenclature	Specification or Part Number
Packing (3)	M25988/1-010
Packing (4)	M25988/1-013
Petrolatum, Technical	VV-P-236 (CAGE 81348)

a. Rotate poppet clockwise 1/4 turn to extend poppet.

b. Remove packing (3, 6, 9, 12, 15, 18, or 19, figure 1, detail H) from poppet.



Petrolatum, Technical

2

c. Lubricate new packing (3, 6, 9, 12, 15, 18 or 19) with petrolatum and install on poppet.

d. Push up poppet flush with drain valve (2, 5, 8, 11, 14, 17, or 20). Rotate poppet counterclockwise 1/4 turn to secure poppet.

e. Inspect drain valve for fuel leaks.

5. ILLUSTRATED PARTS BREAKDOWN.

6. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

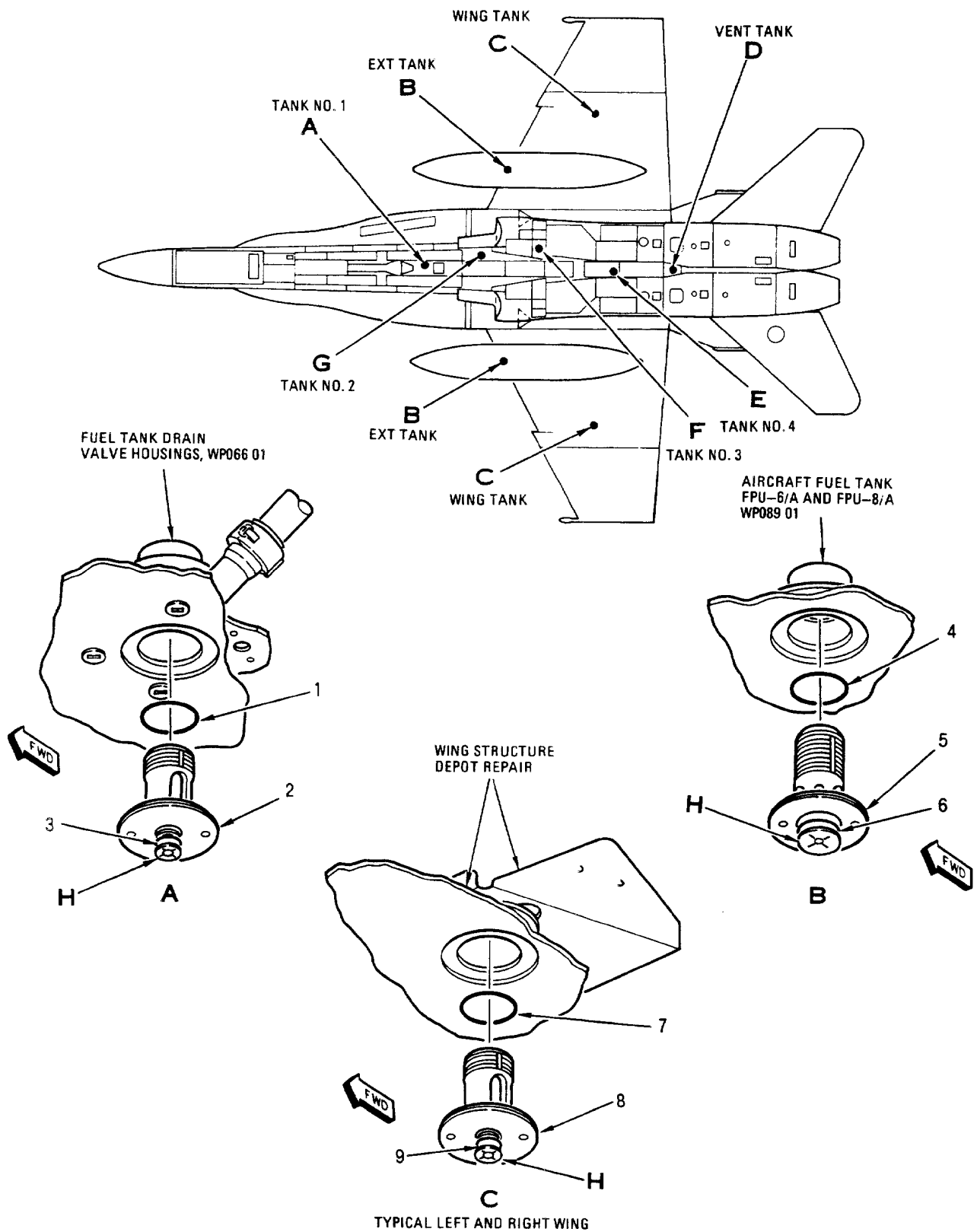


Figure 1. Fuel Tank Drain Valves (Sheet 1)

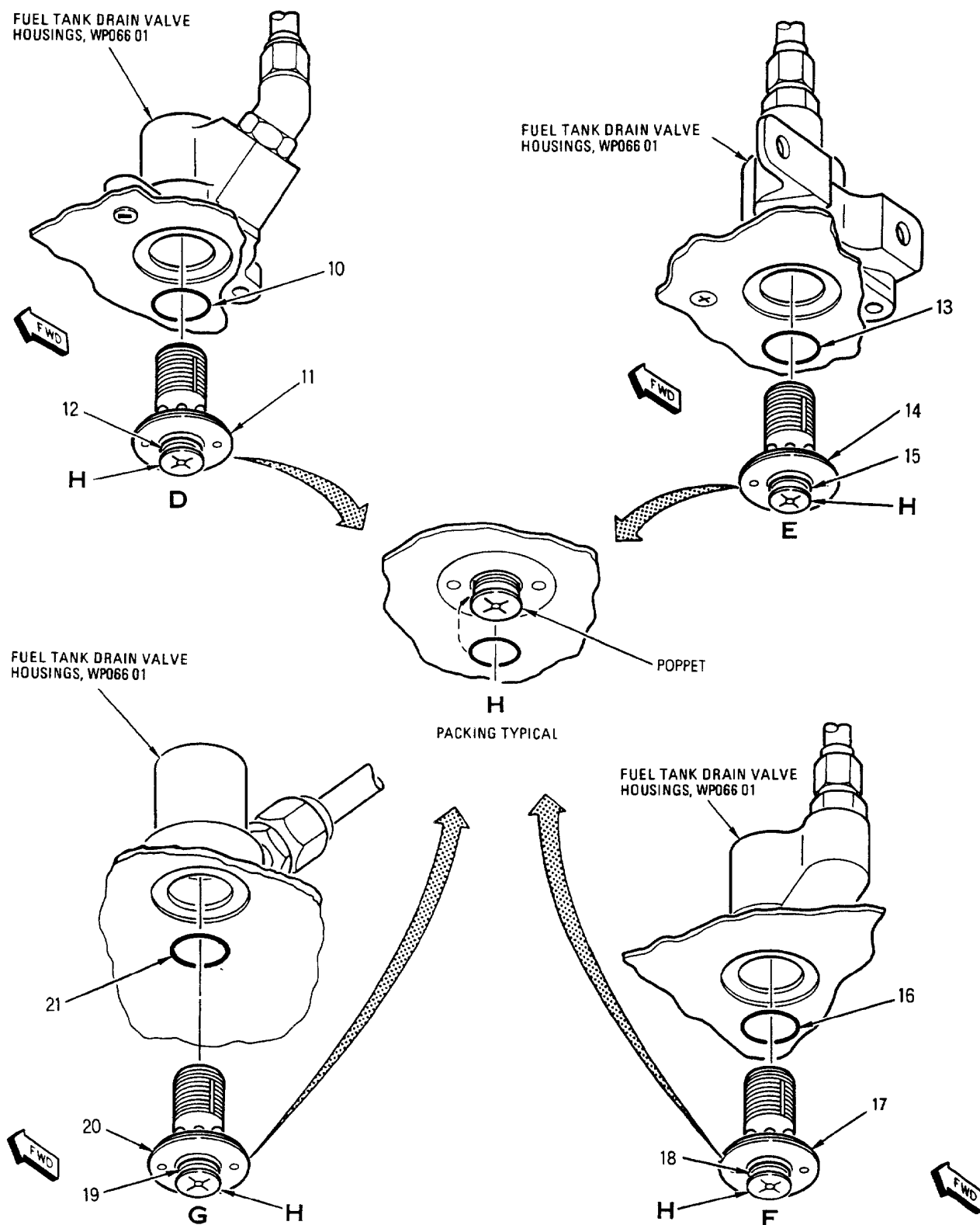


Figure 1. Fuel Tank Drain Valves (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUEL TANK DRAIN VALVES									
1	MS29513-021	.	PACKING						1		PAOZZ
2	68D-10	.	COCK, POPPET DRAIN - FUEL TANK (NO. 1 FUEL TANK DRAIN VALVE) (91511) (MCDONNELL SPEC 74J588005-103) (5VAP614)						1		PAOOO
3	M25988/1-010	.	PACKING						1		PAOZZ
4	MS29513-021	.	PACKING						1		PAOZZ
5	MS29571-1	.	COCK, POPPET, DRAIN - EXTERNAL, FUEL TANK (EXTERNAL FUEL TANK DRAIN VALVE) (5VAY628)						1		PAOOO
6	M25988/1-010	.	PACKING						1		PAOZZ
7	MS29513-021	.	PACKING						1		PAOZZ
8	68D-10	.	COCK, POPPET, DRAIN - FUEL TANK (WING FUEL TANK DRAIN VALVE) (91511) (MCDONNELL SPEC 74J588005-103) (5VAU617 OR 5VAV618)						2		PAOOO
9	M25988/1-010	.	PACKING						1		PAOZZ
10	MS29513-026	.	PACKING						1		PAOZZ
11	68D20S	.	COCK, POPPET, DRAIN - FUEL TANK (VENT TANK FUEL DRAIN VALVE) (91511) (MCDONNELL SPEC 74J588005-101) (5VAS619)						1		PAOOO
	18-2000-1	.	SEE ABOVE (96736)						1		PAOOO
	68D-20	.	SEE ABOVE (91511)						1	*	PAOOO
12	M25988/1-013	.	PACKING						1		PAOZZ
13	MS29513-026	.	PACKING						1		PAOZZ
14	68D20S	.	COCK, POPPET, DRAIN - FUEL TANK (NO. 4 FUEL TANK DRAIN VALVE) (91511) (MCDONNELL SPEC 74J588005-101) (5VAP586)						1		PAOOO
	18-2000-1	.	SEE ABOVE (96736)						1		PAOOO
	68D-20	.	SEE ABOVE (91511)						1	*	PAOOO
15	M25988/1-013	.	PACKING						1		PAOZZ
16	MS29513-026	.	PACKING						1		PAOZZ
17	68D20S	.	COCK, POPPET, DRAIN - FUEL TANK (NO. 3 FUEL TANK DRAIN VALVE) (91511) (MCDONNELL SPEC 74J588005-101) (5VAP616)						1		PAOOO
	18-2000-1	.	SEE ABOVE (96736)						1		PAOOO
	68D-20	.	SEE ABOVE (91511)						1	*	PAOOO
18	M25988/1-013	.	PACKING						1		PAOZZ
19	M25988/1-013	.	PACKING						1		PAOZZ
20	68D20S	.	COCK, POPPET, DRAIN - FUEL TANK (NO. 2 FUEL TANK DRAIN VALVE) (91511) (MCDONNELL SPEC 74J588005-101) (5VAP615)						1		PAOOO
	18-2000-1	.	SEE ABOVE (96736)						1		PAOOO
	68D-20	.	SEE ABOVE (91511)						1	*	PAOOO
21	MS29513-026	.	PACKING						1		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

Figure 1. Fuel Tank Drain Valves (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
FUEL TANK DRAIN VALVE HOUSINGS
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-320
Fuel Tank Maintenance Precaution and General Preparation	WP013 00
Fuel Tank Drain Valves	WP066 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Piping Installation	A1-F18AC-PIM-000
Aft Fuselage, Lower Center Keel, Door 64L	WP094 00
Power Plant and Related Systems	A1-F18AC-270-300
Engine	WP003 00
Structure Repair Manual - General Information	A1-F18AC-SRM-200
Sealant Preparation and Application	WP011 00
Structure Hardware	NAVAIR 01-1A-8

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Record of Applicable Technical Directives

None

1. NO. 1 FUEL TANK DRAIN VALVE HOUSING (5VAP649) REMOVAL AND INSTALLATION.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Brush, Paint-type, 1/4	-
Cheesecloth	301 (CAGE 97327)
Isopropyl Alcohol	TT-I-735 GRADE 1 (CAGE 81348)
Packing (2)	MS29513-015
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Scraper, Wooden or Phenolic	-
Sealing Compound	MIL-S-8802, Type 2 Class A-1/2 (CAGE 81349)

2. REMOVAL.

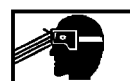
a. Remove no. 1 fuel tank drain valve (WP066 00).

b. Remove door 33 (A1-F18AC-LMM-010).

c. Remove coupling (4, figure 1) (WP013 00) and remove housing (1).

3. INSTALLATION.

a. Remove sealing compound from door 33 with plastic or wooden scraper.



Isopropyl Alcohol

3

b. Clean mating surfaces of housing and door 33 with cheesecloth moistened with isopropyl alcohol. Wipe areas with clean dry cheesecloth before isopropyl alcohol evaporates. Repeat procedure until no visible contamination remains.



Petrolatum, Technical

2

c. Lubricate new packings (2, figure 1) with petrolatum.

d. Install packings (2) on housing (1) and tube (3).

e. Position housing (1) and inspect and install coupling (4) (WP013 00).



Sealing Compound

6

f. Apply a brush coat of sealing compound to mating surfaces of housing (1, figure 1) and door 33.

g. Install drain valve (WP066 00).

h. Install door 33 (A1-F18AC-LMM-010).

i. Fillet seal area between housing (1) and door 33 (A1-F18AC-SRM-200, WP011 00).

4. NO. 1 FUEL TANK DRAIN VALVE HOUSING (5VAP649) REPAIR.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Adhesive	EA9309A/B (CAGE 33564)
Brush, Paint-type, 1/4 inch	-
Cheesecloth	301 (CAGE 97327)
Gloves, Cotton Work, Men's	MIL-G-3866, Type I
Methyl Ethyl Ketone	TT-M-261 (CAGE 81348)
Nylon Monofilament Line 0.008-0.012 inch diameter	-
Paper, Abrasive	A-A-1047, Grit 400-9x11
Scraper, Wooden or Phenolic	-

5. PLATENUTS.

a. Repair or replace loose or missing nutplates (NAVAIR 01-1A-8).

6. NO. 1 FUEL TANK DRAIN VALVE HOUSING (5VAP649).

a. Remove housing (1, figure 1) (paragraph 2).

b. Bond washer (5) to housing (1) per substeps below:

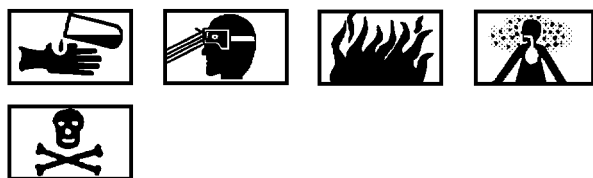
(1) Remove adhesive from housing (1) using plastic or wooden scraper.

(2) Using abrasive paper, lightly sand mating surfaces of housing (1) and washer (5).

NOTE

Avoid contact with prepared surfaces. Wear clean, white, cotton gloves when handling.

(3) Clean mating surfaces of housing (1) and washer (5) with clean, dry cheesecloth.



Adhesive

7

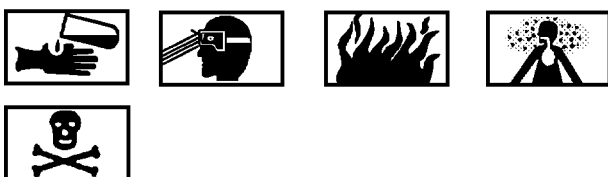
(4) Apply a brush coat of adhesive to mating surfaces of housing (1) and washer (5).

NOTE

Monofilament line is placed between housing and washer to control bondline thickness.

(5) Place 1 inch strips of monofilament line in adhesive on housing (1).

(6) Position washer (5) on housing (1) and apply pressure.



Methyl Ethyl Ketone

8

(7) Remove excess adhesive with clean cheese-cloth moistened with Methyl Ethyl Ketone.

(8) Allow adhesive to dry 3 days at room temperature before installing.

c. Install housing (1) (Installation, this WP).

7. NO 2 FUEL TANK DRAIN VALVE HOUSING (5VAP650).**Support Equipment Required**

None

Materials Required

None

8. REMOVAL.

- a. Remove no. 2 fuel tank drain valve (WP066 00).
- b. Remove door 27 (A1-F18AC-LMM-010).
- c. Disconnect tube (1, figure 2).
- d. Remove rivets (5) (NAVAIR 01-1A-8).
- e. Remove housing (3) and filler (4).
- f. Remove elbow (2) from housing (3).

9. INSTALLATION.

- a. Install elbow (2, figure 2) in housing (3).
- b. Position housing (3) and filler (4) and install rivets (5) (NAVAIR 01-1A-8).
- c. Connect tube (1).
- d. Install no. 2 fuel tank drain valve (WP066 00).
- e. Install door 27 (A1-F18AC-LMM-010).

10. NO. 3 FUEL TANK DRAIN VALVE HOUSING (5VAP651).**Support Equipment Required**

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-08
Petrolatum, Technical	VV-P-236 (CAGE 81348)

11. REMOVAL.

- a. Remove no. 3 fuel tank drain valve (WP066 00).
- b. Remove door 129L (A1-F18AC-LMM-010).
- c. Disconnect tube (1, figure 3).
- d. Remove rivets (5) (NAVAIR 01-1A-8) and remove housing (4).

e. Remove nipple (2) and packing (3) from housing (4).

12. INSTALLATION.



Petrolatum, Technical

2

- a. Lubricate packing (3, figure 3) with petrolatum.
- b. Install packing (3) and nipple (2) in housing (4).
- c. Position housing (4) and install rivets (5) (NAVAIR 01-1A-8).
- d. Connect tube (1).
- e. Install drain valve (WP066 00).
- f. Install door 129L (A1-F18AC-LMM-010).

13. NO. 4 FUEL TANK DRAIN VALVE HOUSING (5VAP652).

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-08
Petrolatum, Technical	VV-P-236 (CAGE 81348)

14. REMOVAL.

- a. Remove no. 4 fuel tank drain valve (WP066 00).
- b. Remove door 47 (A1-F18AC-LMM-010).
- c. Disconnect tube (1, figure 4).
- d. Remove bolts (3 and 8), attaching parts and housing (7).

e. Remove bolt (4), attaching parts and bracket (5) from housing (7).

f. Remove nipple (10) and packing (9) from housing (7).

15. INSTALLATION.



Petrolatum, Technical

2

- a. Lubricate packing (9) with petrolatum.
- b. Install packing (9) and nipple (10) in housing (7).
- c. Position bracket (5) and install bolt (4) and attaching parts.
- d. Prepare mating surface of bolts (8), support (11) and housing (7) for electrical bond (A1-F18AC-LMM-000).
- e. Position housing (7) to support (11) and install bolts (8) and attaching parts.
- f. Install clamp (2), bolt (3), and attaching parts.
- g. Connect tube (1).
- h. Install no. 4 fuel tank drain valve (WP066 00).
- i. Install door 47 (A1-F18AC-LMM-010).

16. VENT TANK DRAIN VALVE HOUSING (5VAP653).

Support Equipment Required

None

Materials Required

Specification or Part Number	Nomenclature
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Packing	MS29512-08

17. REMOVAL.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.
- c. Remove vent tank drain valve (WP066 00).
- d. Remove left engine (A1-F18AC-270-300, WP003 00).
- e. Remove internal doors EBB and EBC (A1-F18AC-LMM-010).
- f. Disconnect electrical connectors (22P-S019, 22P-S023 and 22P-S018).
- g. Remove tube (1, figure 5).
- h. Remove tubes (2, 3, and 4) (A1-F18AC-PIM-000).
- i. Remove tube (5, detail A).
- j. Remove screws (10) and housing (9).
- k. Remove elbow (6), nut (7), and packing (8) from housing (9).

18. INSTALLATION.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

- b. Lubricate packing (8, figure 5) with petrolatum.
- c. Install packing (8), nut (7), and elbow (6) in housing (9).
- d. Prepare mating surfaces of housing (9) and structure for electrical bond (A1-F18AC-LMM-000).
- e. Position housing (9) and install screws (10).
- f. Prepare mating threads of tee (11) and tube (5) for electrical bond (A1-F18AC-LMM-000).
- g. Install tube (5).
- h. Install tubes (2 and 4) (A1-F18AC-PIM-000).
- i. Install tube (3) (A1-F18AC-PIM-000).
- j. Connect connectors (22P-S019, 22P-S023 and 22P-S018).
- k. Install vent tank drain valve (WP066 00).
- l. Install internal doors EBB and EBC (A1-F18AC-LMM-010).
- m. Install left engine (A1-F18AC-270-300, WP003 00).
- n. Remove no power tag from external power receptacle.

19. ILLUSTRATED PARTS BREAKDOWN.

20. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

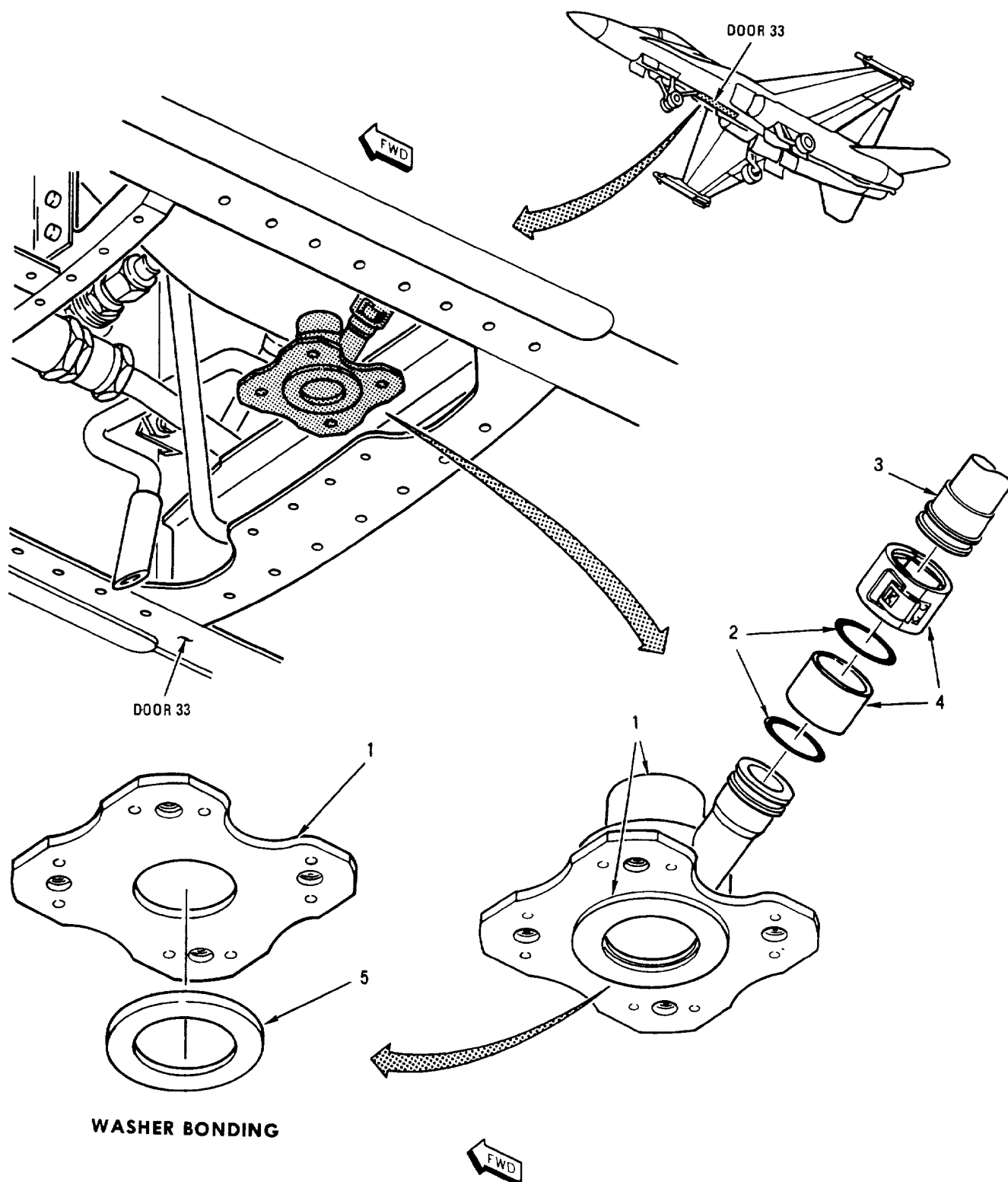


Figure 1. No. 1 Fuel Tank Drain Valve Housing (5VAP649) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		NO. 1 FUEL TANK DRAIN VALVE HOUSING (5VAP649)			
1	74A582084-1007	. CASE - COCK, POPPET DRAIN, FUEL TANK NO. 1 (NO. 1 FUEL TANK DRAIN VALVE HOUSING) (76301) (5VAP649)	1		XBOOO
	74A582084-1005	. SEE ABOVE	1	*	XBOOO
	74A582084-1003	. SEE ABOVE	1	*	XBOOO
	NS21059L3	. NUT, PLATE (USE WITH 74A582084-1003)	4		PAOZZ
	F12198-3	. NUT, PLATE (72962) (MCDONNELL SPEC ST3M725C3M) (USE WITH 74A582084-1005 AND 74A582084-1007)	4	*	PAOZZ
	F50405-3	. SEE ABOVE (15653)	4	*	PAOZZ
	NS20212-02	. SEE ABOVE (80539)	4	*	PAOZZ
	NAS463XDD10H	. SHIM (UNDER PLATE NUT) (USE WITH 74A582084-1005 AND 74A582084-1007)	4		PAOZZ
	NAS1097AD3 #	. RIVET (AP)	2		-
2	MS29513-015	. PACKING	2		PAOZZ
3	74A582093-1005	. TUBE ASSEMBLY, METAL - FUEL DRAIN Y355.57 (76301) (SUPERSEDES 74A582083-1003 AND 74A582093-1003)	1		MGOZZ
4	W901K8DE	. COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-8D) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-8A	. SEE ABOVE (24984)	1		PAOZZ
	W901F8DE	. SEE ABOVE (79326) (MCDONNELL SPEC 7M550-8D) (INCLUDES SLEEVE)	1	*	PAOZZ
5	NAS1252-1416L	. WASHER (REPLACES AN960JD1416)	1		PAOZZ
		* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)			

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

Figure 1. No. 1 Fuel Tank Drain Valve Housing (5VAP649) (Sheet 2)

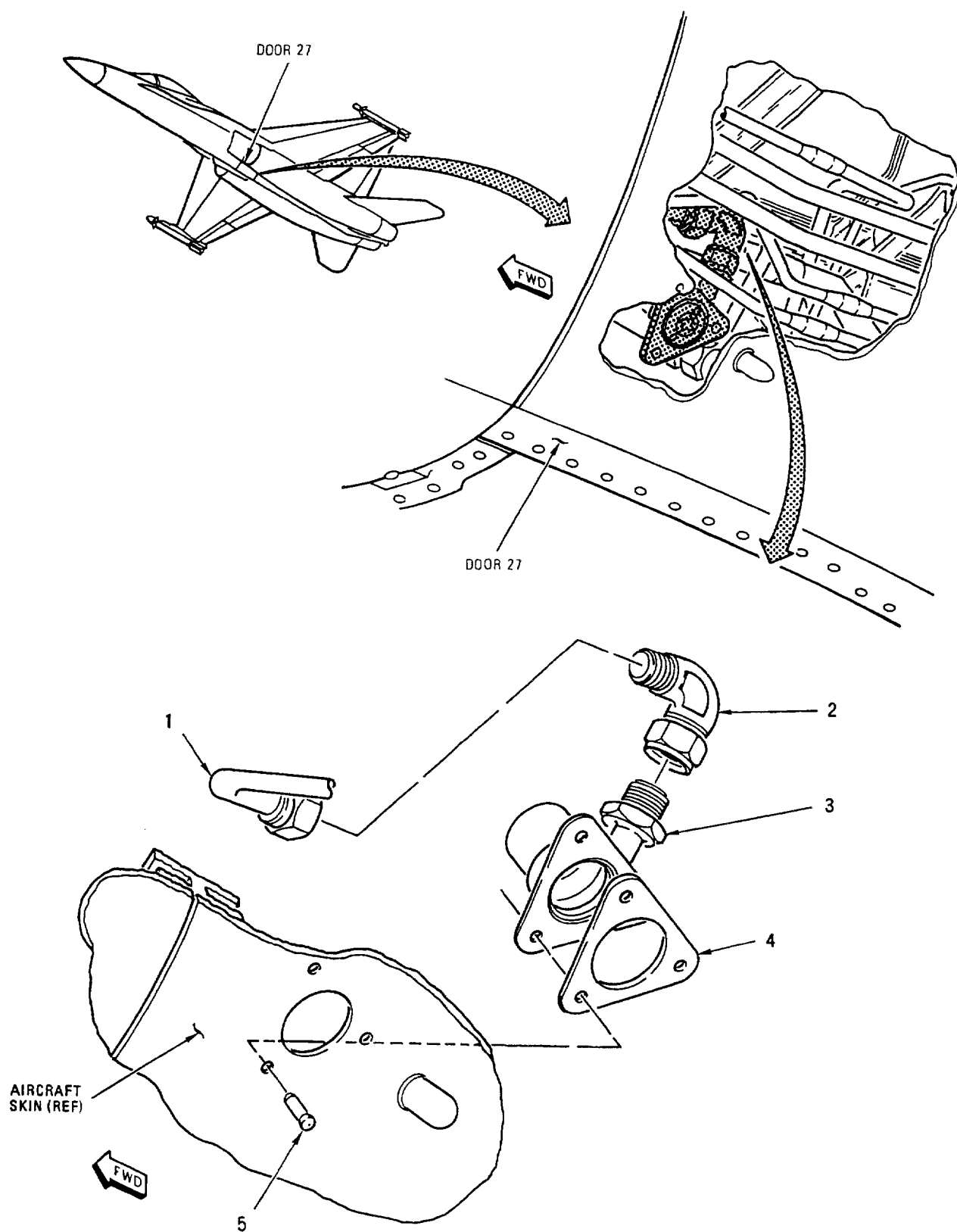


Figure 2. No. 2 Fuel Tank Drain Valve Housing (5VAP650) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK DRAIN VALVE									
		HOUSING (5VAP650)									
1	74A586572-1005	.	TUBE ASSEMBLY, METAL - VENT,						1		MGOZZ
			Y418.882 (76301) (SUPERSEDES								
			74A586572-1003)								
2	7M148V8	.	ELBOW (76301)						1		PAOZZ
3	74A586257-2011	.	HOUSING, VALVE - FUEL DRAIN,						1		PAOZZ
			TANK NO. 2 (76301)								
			(REPLACES 74A586257-1003)								
	74A586257-1003	.	HOUSING, VALVE - FUEL DRAIN,						1	A	PAOZZ
			TANK NO. 2 (76301) (USE								
			UNTIL EXHAUSTED)								
4	74A586244-2037	.	FILLER						1		XBOZZ
5	BRFZ6E-6 #	.	RIVET, SOLID (MCDONNELL						3		-
			SPEC 3M1022E6)								
# LENGTH/SIZE TO BE DETERMINED											
AT INSTALLATION.											
* ALTERNATE OR EQUIVALENT											
PARTS. (WP002 00)											
CODE			USABLE ON			MODEL					
A			161353 THRU 161704			F/A-18A/B					

Figure 2. No. 2 Fuel Tank Drain Valve Housing (5VAP650) (Sheet 2)

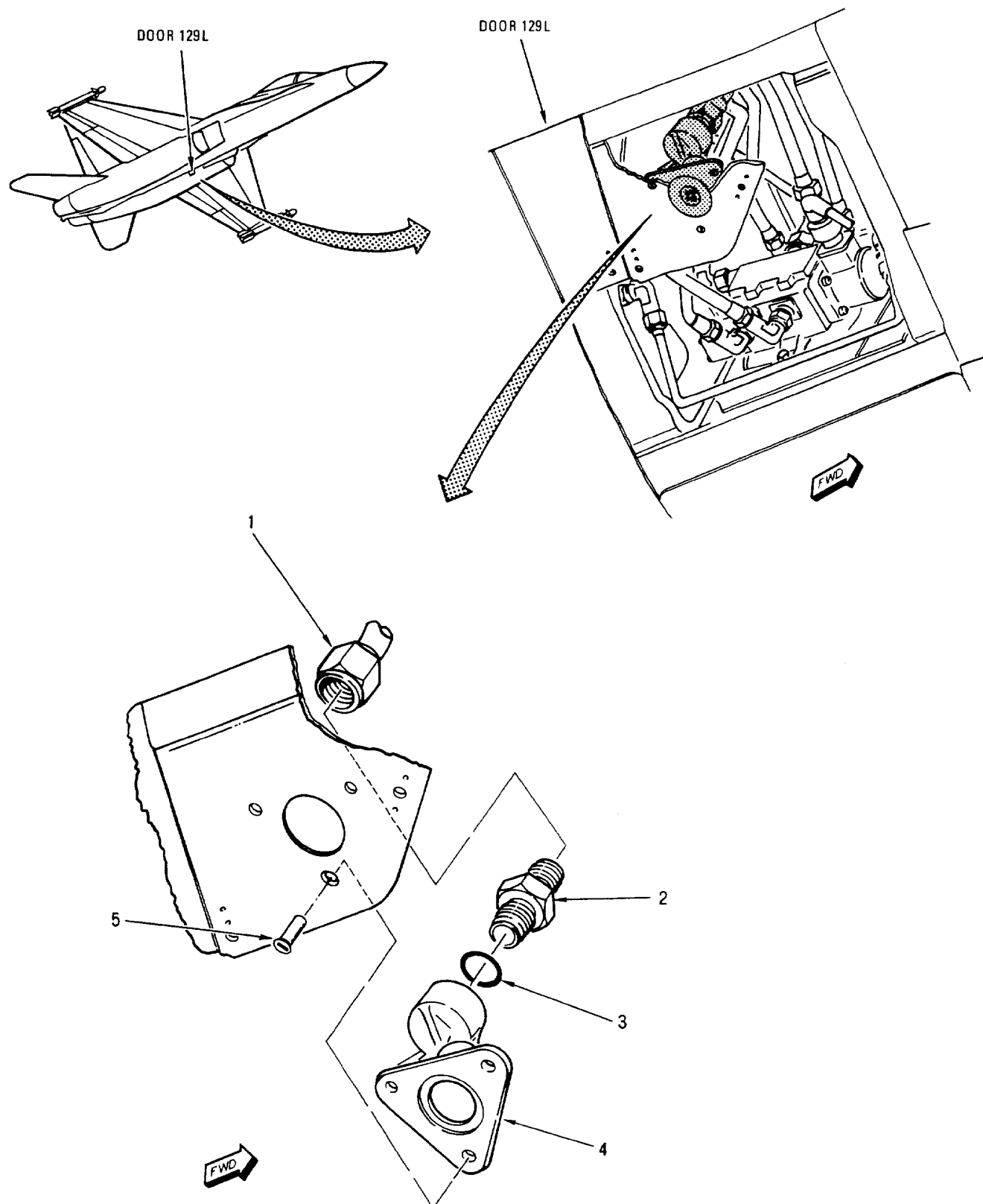


Figure 3. No. 3 Fuel Tank Drain Valve Housing (5VAP651) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 3 FUEL TANK DRAIN VALVE									
		HOUSING (5VAP651)									
1	74A586574-1005	.							1		MGOZZ
		TUBE ASSEMBLY, METAL -									
		DRAIN LINE, Y449.002									
		(76301) (SUPERSEDES									
		74A586574-1003 74A586574-1007									
		AND 74586574-1009)									
2	7M637BD-8D	.							1		PAOZZ
3	MS29512-08	.							1		PAOZZ
4	74A586319-2005	.							1		PAOZZ
		HOUSING, VALVE - FUEL DRAIN,									
		TANK NO. 3 (NO. 3 FUEL TANK									
		DRAIN VALVE HOUSING)									
		(76301) (5VAP651)									
5	MS14218 #	.							3		-
		RIVET (AP)									

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

Figure 3. No. 3 Fuel Tank Drain Valve Housing (5VAP651) (Sheet 2)

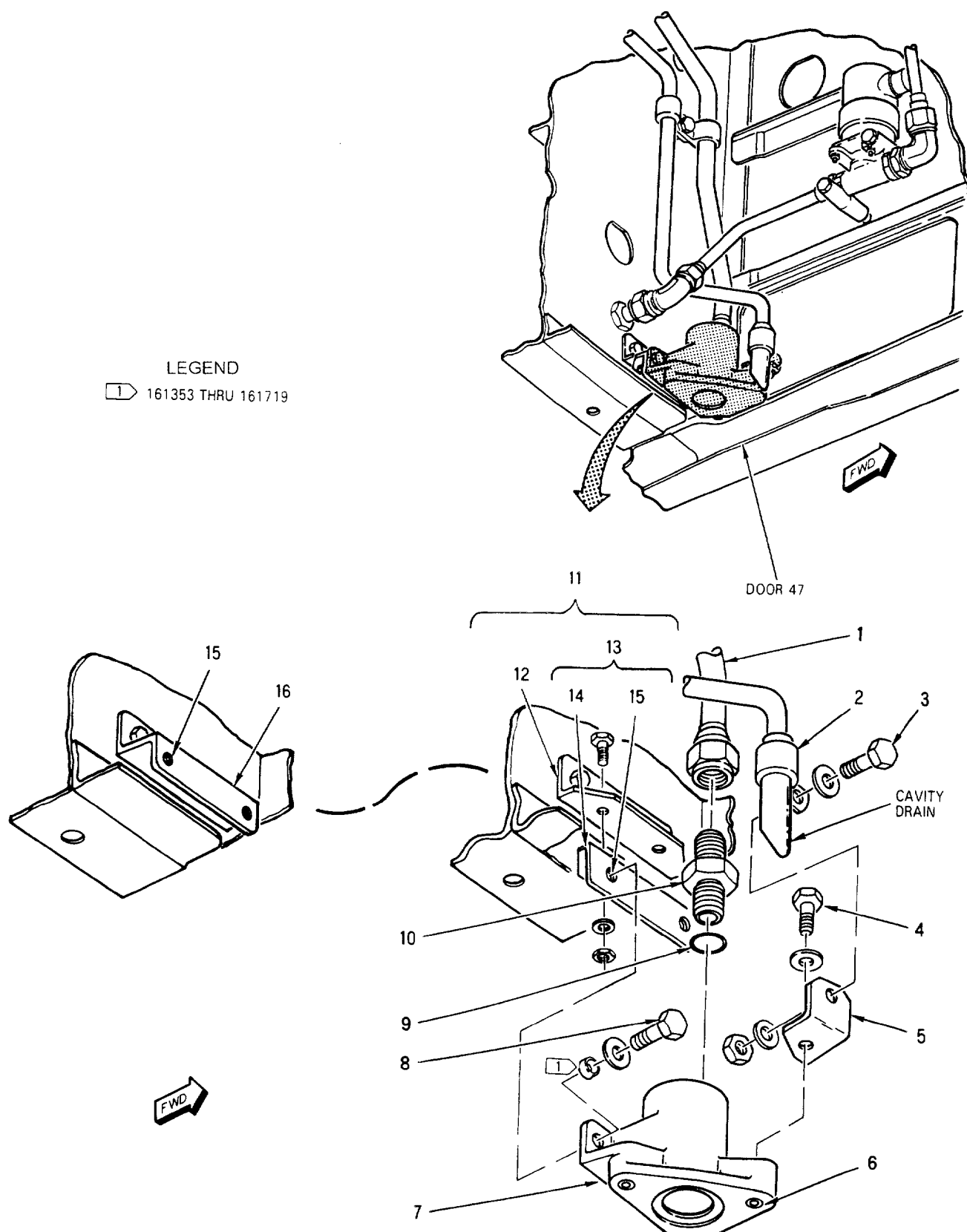


Figure 4. No. 4 Fuel Tank Drain Valve Housing (5VAP652) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 4 FUEL TANK DRAIN VALVE									
		HOUSING (5VAP652)									
1	74A586853-1003	.	TUBE ASSEMBLY, METAL - DRAIN,						1	C	MGOZZ
			NO. 4 FUEL CELL (76301)								
	74A586853-1011	.	TUBE ASSEMBLY, METAL - DRAIN,						1	D	MGOZZ
			NO. 4 FUEL CELL (76301)								
			(SUPERSEDES 74A586853-1007								
			AND 74A586853-1009)								
2	MS25281-R9	.	CLAMP (SUPERSEDES MS25281-9)						1		PAOZZ
3	NAS673Y4	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 3)						2		PAOZZ
	NAS1291C3M	.	NUT (USE WITH INDEX 3)						1		PAOZZ
4	NAS673V2	.	BOLT						1		PAOZZ
	AN960JD10	.	WASHER (USE WITH INDEX 4)						1		PAOZZ
	MS21209F1-15	.	INSERT (USE WITH INDEX 4)						1		PAOZZ
5	74A586429-2053	.	BRACKET, CAVITY DRAIN						1		XBOZZ
			SUPPORT (76301)								
6	MS21209F1-20	.	INSERT (USED WITH DOOR 47 BOLTS)						2		PAOZZ
7	74A586409-1003	.	HOUSING - VALVE, FUEL DRAIN,						1		XBOOO
			TANK NO. 4 (76301)								
			(SUPERSEDES 74A586409-1001)								
8	NAS673V5	.	BOLT						2	A	PAOZZ
	NAS673V4	.	BOLT						2	B	PAOZZ
	NAS1401-3D3	.	WASHER (USE WITH INDEX 8)						2	A	PAOZZ
	AN960JD10	.	WASHER (USE WITH INDEX 8)						2	B	PAOZZ
			(USE WITH 74A586409-1003)								
	4M36-01016	.	WASHER (USE WITH INDEX 8)						2	B	PAOZZ
			(USE WITH 74A586409-1001)								
	NAS43DD3-8	.	SPACER (USE WITH INDEX 8)						2	A	PAOZZ
9	MS29512-08	.	PACKING						1		PAOZZ
10	7M637BD-8D	.	NIPPLE (76301)						1		PAOZZ
11	74A586656-1003	.	SUPPORT, VALVE - FUEL DRAIN						1	B	XBOOO
			TANK NO. 4 (76301)								
	NAS673V3	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
12	74A586656-2007	.	ANGLE (76301)						1	B	XBOZZ
13	74A586656-2005	.	SUPPORT ASSY (76301)						1	B	XBOOO
	NAS673V2	.	BOLT (AP)						2	B	PAOZZ
	AN960JD10	.	WASHER (AP)						2	B	PAOZZ
	NAS1291C3M	.	NUT (AP)						2	B	PAOZZ
14	74A586656-2003	.	SUPPORT (76301)						1	B	XBOZZ
15	MS21062L3	.	NUT, PLATE						2		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
16	74A586656-1001	.	SUPPORT, VALVE - FUEL DRAIN,						1	A	XBOGG
			TANK NO. 4 (76301)								
	NAS673V3	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

Figure 4. No. 4 Fuel Tank Drain Valve Housing (5VAP652) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161353 THRU 161719	F/A-18A/B
B	161720 & UP	F/A-18A/B
C	161353 THRU 161741	F/A-18A/B
D	161742 & UP	F/A-18A/B

Figure 4. No. 4 Fuel Tank Drain Valve Housing (5VAP652) (Sheet 3)

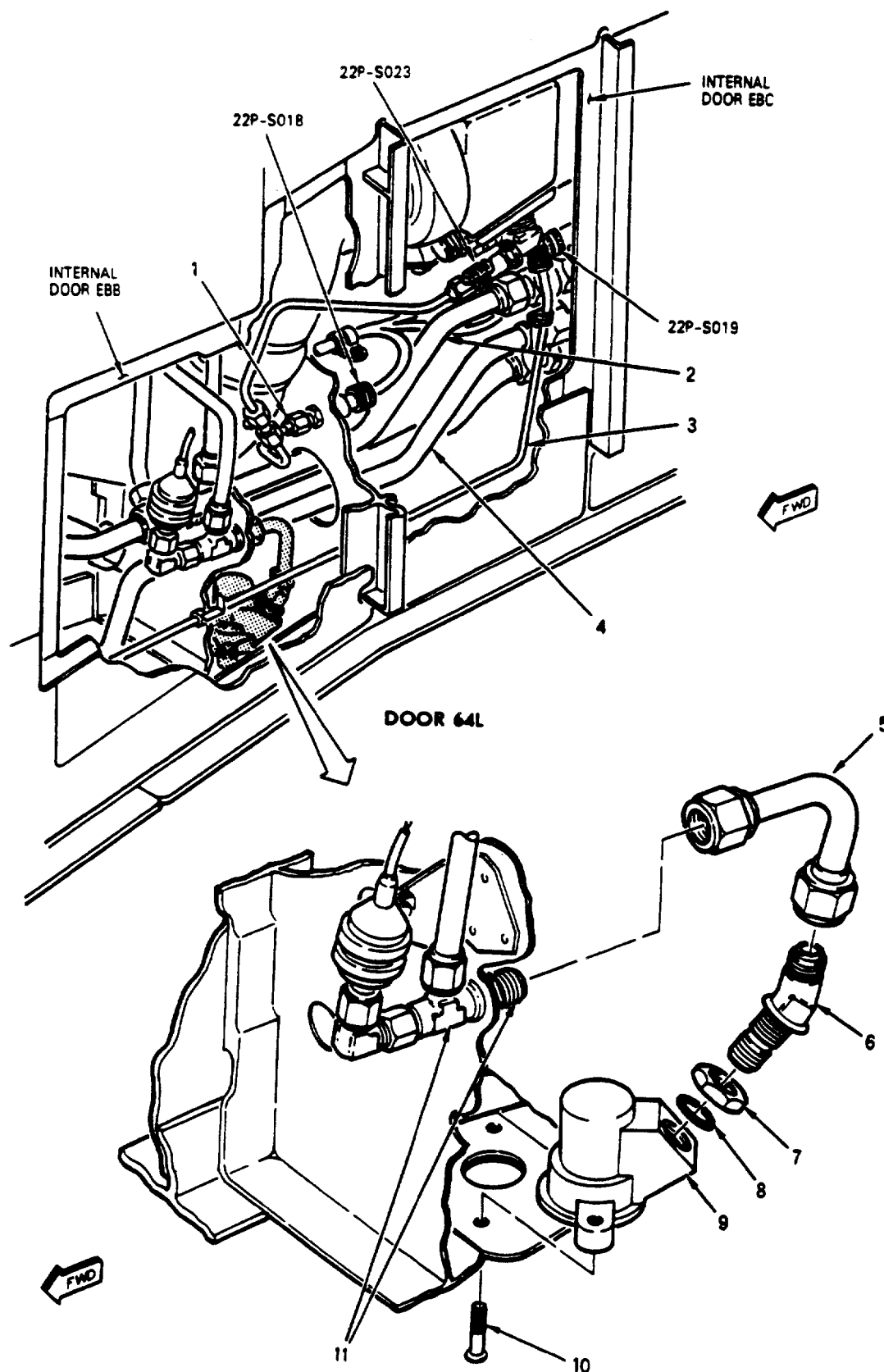


Figure 5. Vent Tank Drain Valve Housing (5VAP653) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		VENT TANK DRAIN VALVE			
		HOUSING (5VAP653)			
1	74A835984-1005	. TUBE ASSEMBLY, METAL -	1	A	PAOZZ
		PRESS SENSING, Y580.50 (76301)			
	74A835984-1013	. SEE ABOVE (REPLACES	1	B	PAOZZ
		74A835984-1011, 74A835984-1009 AND 74A835984-1007)			
	74A835984-1011	. SEE ABOVE (REPLACES	1	C	PAOZZ
		74A835984-1009 AND 74A835984-1007) (USE UNTIL EXHAUSTED)			
	74A835984-1009	. SEE ABOVE (REPLACES	1	D	PAOZZ
		74A835984-1007) (USE UNTIL EXHAUSTED)			
	74A835984-1007	. SEE ABOVE (USE UNTIL	1	E	PAOZZ
		EXHAUSTED)			
2	74A502036-1007	. TUBE ASSEMBLY, METAL -	1		PAOZZ
		FIRE EXTINGUISHER, Y576.1 - Y588.9 (76301)			
	74A502036-1005	. SEE ABOVE	1	*	PAOZZ
	7M637BT-12D	. NIPPLE (76301) (USE WITH INDEX 2)	2		PAOZZ
	AN924-12D	. NUT (AP)	1		PAOZZ
3	74A501326-1001	. TUBE ASSEMBLY, METAL - ENG	1		PAOZZ
		BLEED AIR SEC. REGULATED VENT (76301)			
4	74A502035-1005	. TUBE ASSEMBLY, METAL -	1		PAOZZ
		FIRE EXTINGUISHER, Y576.1 - Y588.9 (76301)			
	74A502035-1003	. SEE ABOVE	1	*	PAOZZ
	7M637BT-12D	. NIPPLE (76301) (USE WITH INDEX 4)	2		PAOZZ
	AN924-12D	. NUT (AP)	1		PAOZZ
5	74A586532-1005	. TUBE ASSEMBLY, METAL - VENT	1		MGOZZ
		TANK DRAIN, Y575 TO Y578.3 (76301) (SUPERSEDES 74A586532-1003)			
6	AN837-8J	. ELBOW	1		PAOZZ
7	AN924-8J	. NUT	1		PAOZZ
8	MS29512-08	. PACKING	1		PAOZZ
9	74A586504-1001	. HOUSING VALVE - FUEL DRAIN,	1		XBOOO
		VENT TANK (VENT TANK DRAIN VALVE HOUSING) (76301) (5VAP653)			
	MS21209FI-20	. INSERT (USE WITH INDEX 9)	2		PAOZZ
10	HT4024L3-2	. SCREW, CLOSE TOLERANCE (AP)	2		PAOZZ
		(73197) (MCDONNELL SPEC ST3M455-3L2-1)			
11	7M118J08-04-08	. TEE, REDUCING (76301)	1		PAOZZ
	AN924-8J	. NUT (AP)	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 5. Vent Tank Drain Valve Housing (5VAP653) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161353 THRU 161357	F/A-18A/B
B	161358 & UP	F/A-18A/B
C	161358 THRU 162427	F/A-18A/B
D	161358 THRU 162411	F/A-18A/B
E	161358 THRU 161929	F/A-18A/B

Figure 5. Vent Tank Drain Valve Housing (5VAP653) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
WING TRANSFER PRESSURE TRANSDUCER
(5MTR125)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Wing Transfer Pressure Transducer (5MTR125), Figure 1	3

Record of Applicable Technical Directives

None

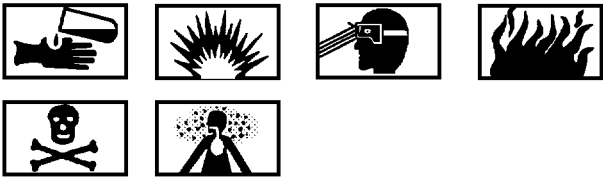
Support Equipment Required

None

c. Open doors 41R and 44R (A1-F18AC-LMM-010).

Materials Required

None



1. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

Jet Fuel

1

d. Position safety container under transducer (2, figure 1, detail B) to catch residual fuel.

e. Disconnect transducer (2) wires at WTR008 splice area.

f. On 161353 THRU 161740, disconnect clamps (1 and 9, details A and E).

g. On 161741 AND UP, disconnect clamps (1, 6, 7, and 8, details A, C, and D).

h. Remove transducer (2).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transducer (2, figure 1, detail C) and connector (5) for electrical bond (A1-F18AC-LMM-000).

c. Install transducer (2).

d. On 161353 THRU 161740, route transducer (2) wire bundle through clamps (1 and 9, details A and E), then connect clamps by installing attaching parts.

e. On 161741 AND UP, route transducer (2) wire bundle through clamps (1, 6, and 8, details A, C, and D), then connect clamps by installing attaching parts.

f. Splice wires at WTR008 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q279B26 (BLK/WHT/WHT) to Q279A26 (BLK).

(2) Q280B26 (BLK) to Q280A26 (BLK/WHT/WHT/WHT/WHT).

(3) Q281B26 (BLK/WHT/WHT/WHT/WHT) to Q281A26 (BLK/WHT/WHT).

(4) Q282B26 (BLK/WHT/WHT/WHT) to Q282A26 (BLK/WHT/WHT/WHT).

g. Install clamp (7) and attaching parts.

h. Remove no power tag from external power receptacle.

i. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

j. Close doors 41R and 44R (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

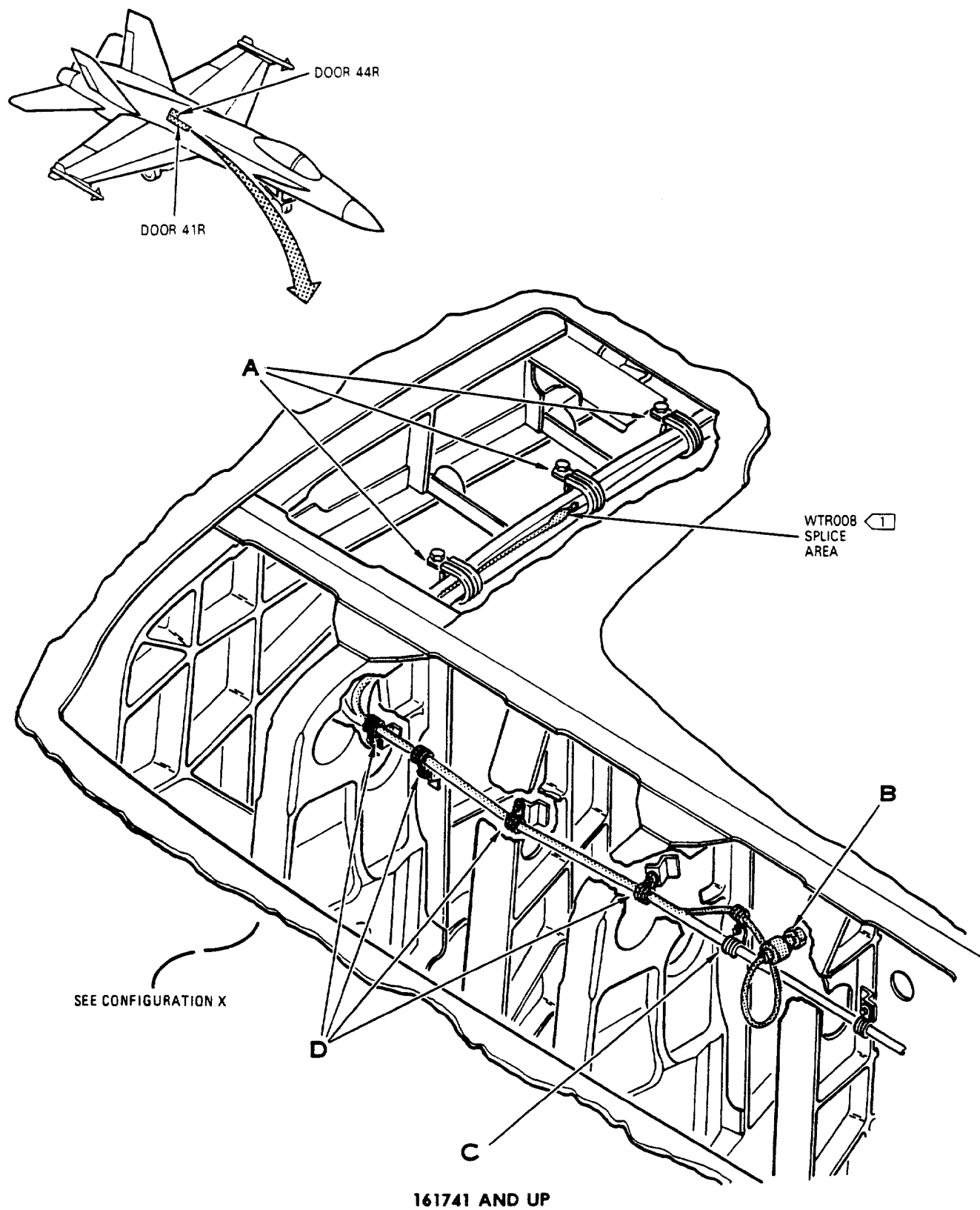


Figure 1. Wing Transfer Pressure Transducer (5MTR125) (Sheet 1)

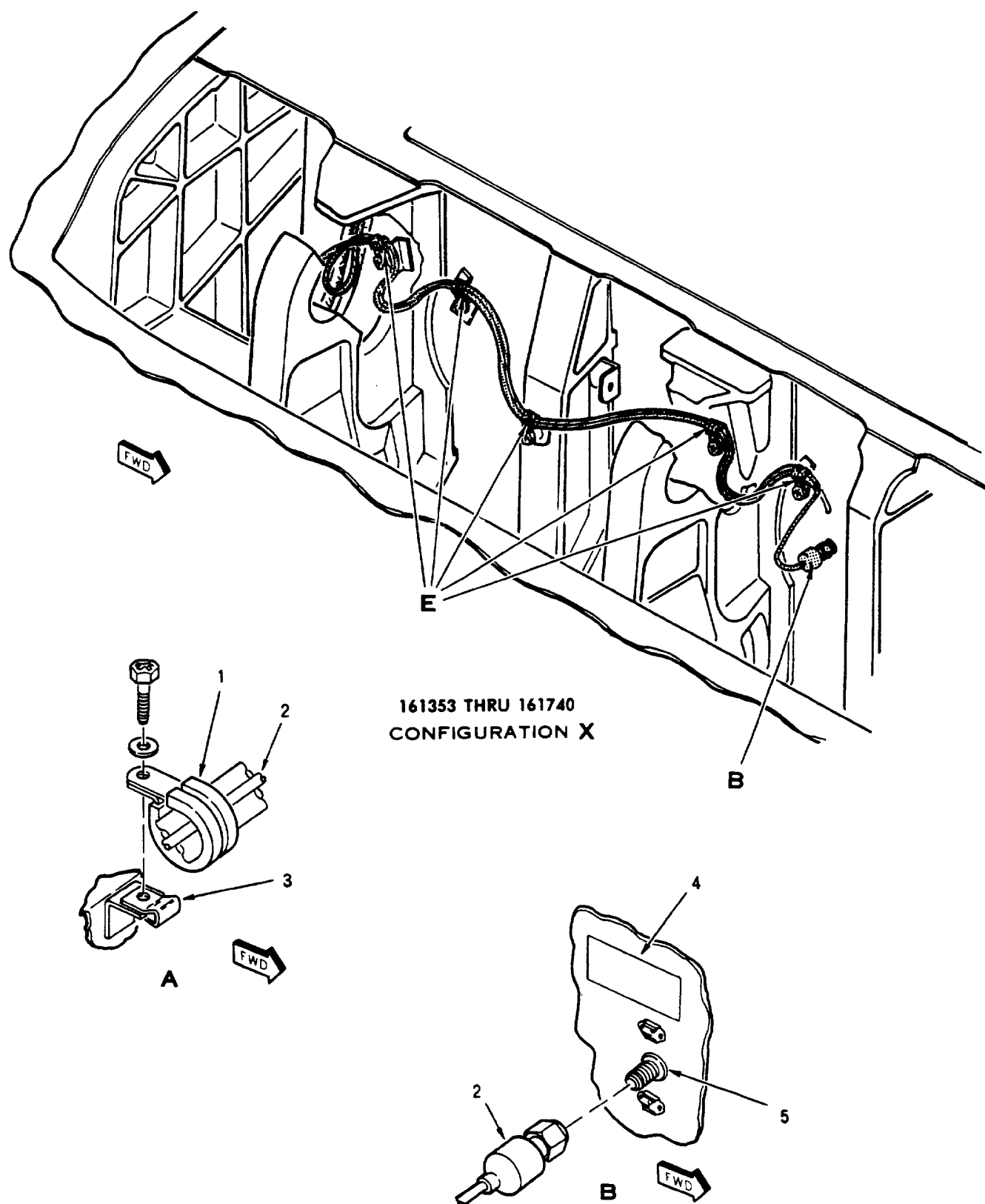
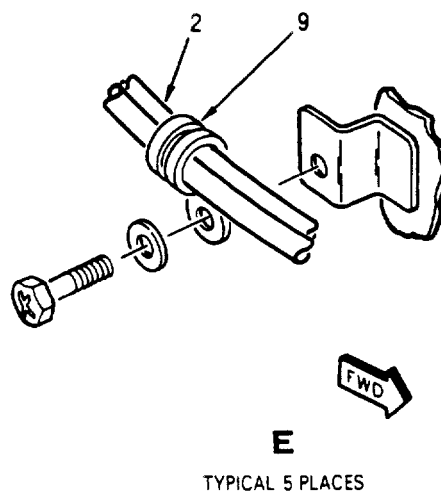
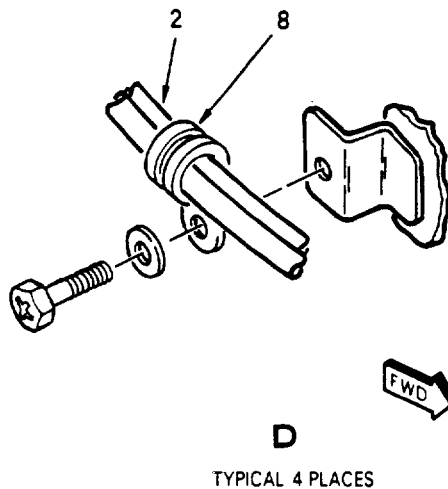
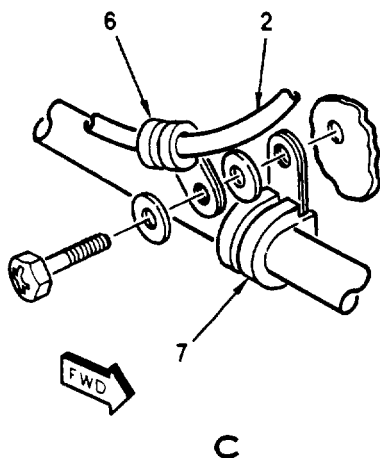


Figure 1. Wing Transfer Pressure Transducer (5MTR125) (Sheet 2)



LEGEND

1 TO LOCATE WIRE TERMINAL REPAIR INFORMATION IN A1-F18AC-WRM-000. USE WRA REFERENCE DESIGNATOR AND TERMINAL NUMBER.

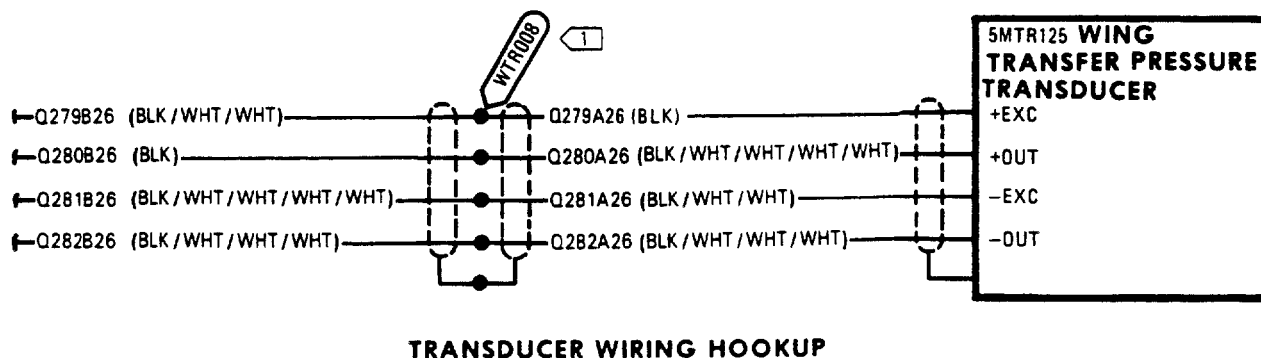


Figure 1. Wing Transfer Pressure Transducer (5MTR125) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		WING TRANSFER PRESSURE			
		TRANSDUCER (5MTR125)			
1	M85052-1-16	. CLAMP	1		PAOZZ
	NAS673V6	. BOLT (AP)	1		PAOZZ
	AN960JD10L	. WASHER (AP)	1		PAOZZ
2	BM-18-1000-100	. TRANSDUCER, PRESSURE (WING	1		PAOZZ
		TRANSFER PRESSURE			
		TRANSDUCER) (34345)			
		(MCDONNELL SPEC 74B580183-141)			
		(5MTR125) (REPLACES BM-14-1000-100			
		AND BM-5-1000-100) (FOR			
		ASSEMBLY SEE 74A770200)			
	BM-14-1000-100	. SEE ABOVE (MCDONNELL	1	*	PAOZZ
		SPEC 74B580183-129)			
	BM-5-1000-100	. SEE ABOVE (MCDONNELL	1	*	PAOZZ
		SPEC 74B580183-117)			
3	A11144-4-3	. NUT, CLIP (72962) (MCDONNELL	1	B	PAOZZ
		SPEC ST3M523C3M1)			
4	74A586555-2047	. PLATE, IDENTIFICATION -	1		MDOZZ
		FUEL SYSTEM (76301)			
		(SUPERSEDES 74A586555-2019 &			
		74A586555-2023			
5	74A585757-2001	. CONNECTOR, TUBE - WING	1		PAOZZ
		INTERFACE, FUEL TANK PRESS			
		(76301) (RIGHT WING) (REPLACES			
		74A586415-2003)			
	74A586415-2003	. CONNECTOR, TUBE - WING	1	A	PAOZZ
		INTERFACE, FUEL TANK			
		PRESS (76301) (RIGHT WING)			
		(USE UNTIL EXHAUSTED)			
6	M85052/1-2	. CLAMP	1	B	PAOZZ
7	JM44LC44WD8	. CLAMP, LOOP (22175) (MCDONNELL	1	B*	PAOZZ
		SPEC ST9M630D8)			
	830WD8G	. SEE ABOVE (83930)	1	B*	PAOZZ
	NAS673V3	. BOLT (AP)	1		PAOZZ
	AN960JD10L	. WASHER (AP) (UNDER BOLT	2		PAOZZ
		AND BETWEEN CLAMPS)			
8	JM44LC44WD8	. CLAMP, LOOP (22175) (MCDONNELL	4	B	PAOZZ
		SPEC ST9M630D8			
	830WD8G	. SEE ABOVE (83930)	4	B	PAOZZ
	NAS673Y2	. BOLT (AP)	1		PAOZZ
	AN960JD10L	. WASHER (AP)	1		PAOZZ
9	JM44LC44WD8	. CLAMP, LOOP (22175) (MCDONNELL	5	C*	PAOZZ
		SPEC ST9M630D8)			
	830WD8G	. SEE ABOVE (83930)	5	C*	PAOZZ
	NAS673V2	. BOLT (AP)	1		PAOZZ
	AN960JD10L	. WASHER (AP)	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Wing Transfer Pressure Transducer (5MTR125) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161353 THRU 161715	F/A-18A/B
B	161741 & UP	F/A-18A/B
C	161353 THRU 161740	F/A-18A/B

Figure 1. Wing Transfer Pressure Transducer (5MTR125) (Sheet 5)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
FUSELAGE TRANSFER PRESSURE TRANSDUCER (5MTP126)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Fuel Supply System Test	WP012 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Record of Applicable Technical Directives

None

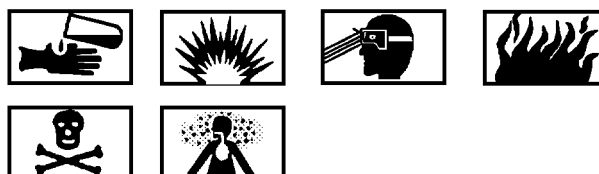
Support Equipment Required

None

c. Open doors 41L and 44L (A1-F18AC-LMM-010).

Materials Required

None



1. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft electrical power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

Jet Fuel

1

d. Position safety container under transducer (2, figure 1, detail A) to catch residual fuel.

e. Disconnect transducer (2) wires at WTP009 splice area.

f. On 161353 THRU 161740, disconnect clamps (4 and 9, details B and F) by removing attaching parts and remove transducer (2).

g. On 161741 THRU 161961, disconnect clamps (4, 6, 10, and 11, details B, C, and G) and remove transducer (2).

h. On 161962 AND UP, disconnect clamps (4, 6, and 7, details B, C, D, and E) and remove transducer (2).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transducer (2, figure 1, detail A) and connector (3) for electrical bond (A1-F18AC-LMM-000).

c. Install transducer (2).

d. On 161353 THRU 161740, route transducer (2) wire bundle through clamps (4 and 9, details B and F), then connect clamps by installing attaching parts.

e. On 161741 THRU 161961, route transducer (2) wire bundle through clamps (4, 6, 10, and 11, details B, C, and G) then connect clamps by installing attaching parts.

f. On 161962 AND UP, route transducer (2) wire bundle through clamps (4, 6, and 7, details B, C, D, and E) then connect clamps by installing attaching parts.

g. Splice wires at WTP009 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q284A26 (BLK) to Q284B26 (BLK/WHT/WHT).

(2) Q285A26 (BLK/WHT/WHT/WHT/WHT) to Q285B26 (BLK).

(3) Q286A26 (BLK/WHT/WHT) to Q286B26 (BLK/WHT/WHT/WHT/WHT).

(4) Q287A26 (BLK/WHT/WHT/WHT) to Q287B26 (BLK/WHT/WHT/WHT).

h. Remove no power tag from external receptacle.

i. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

j. Close doors 41L and 44L (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown had data required for identifying and ordering parts. The manual introduction has more information on IPB data. is omitted for the preferred part. Equivalent parts are fully interchangeable.

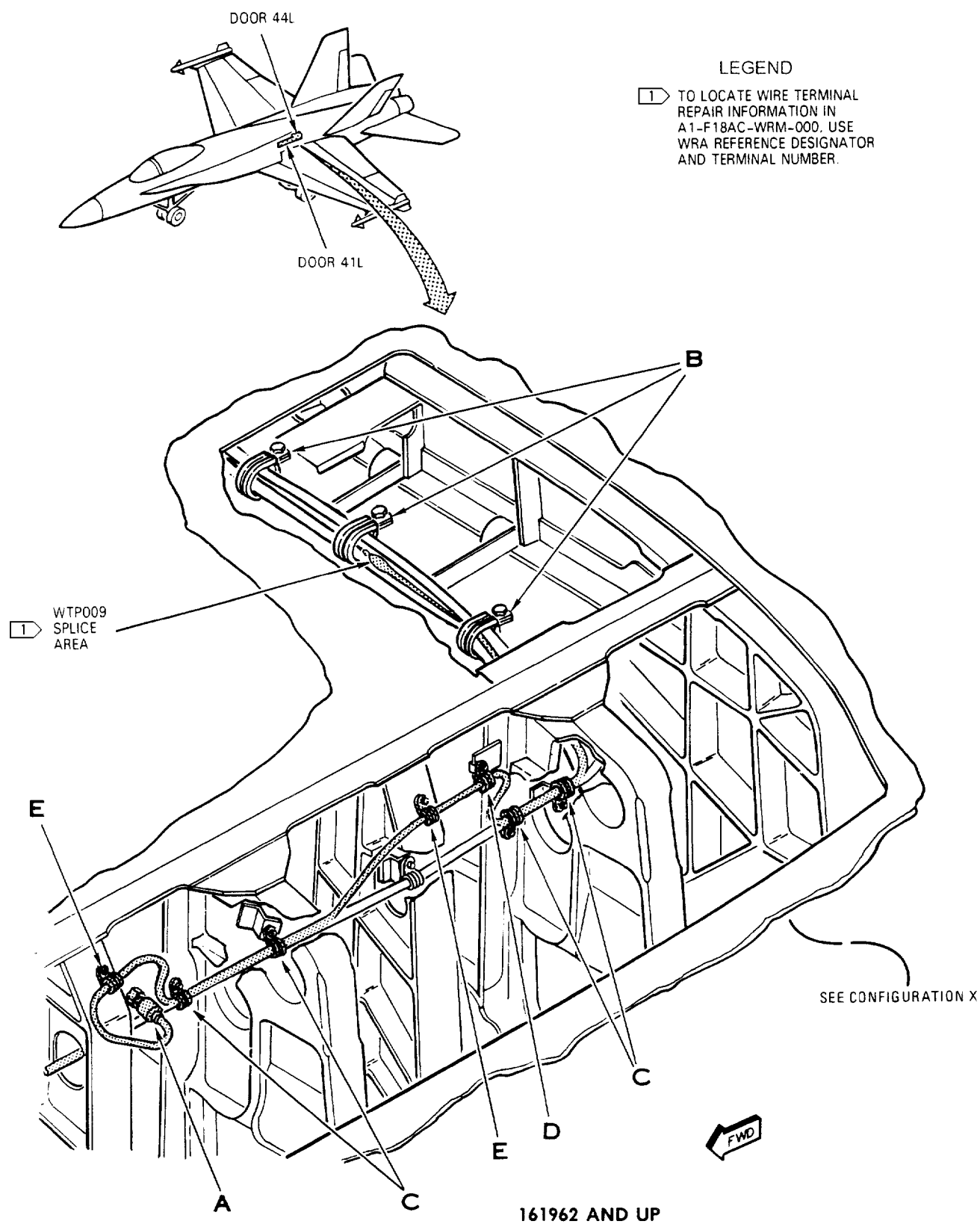


Figure 1. Fuselage Transfer Pressure Transducer (5MTP126) (Sheet 1)

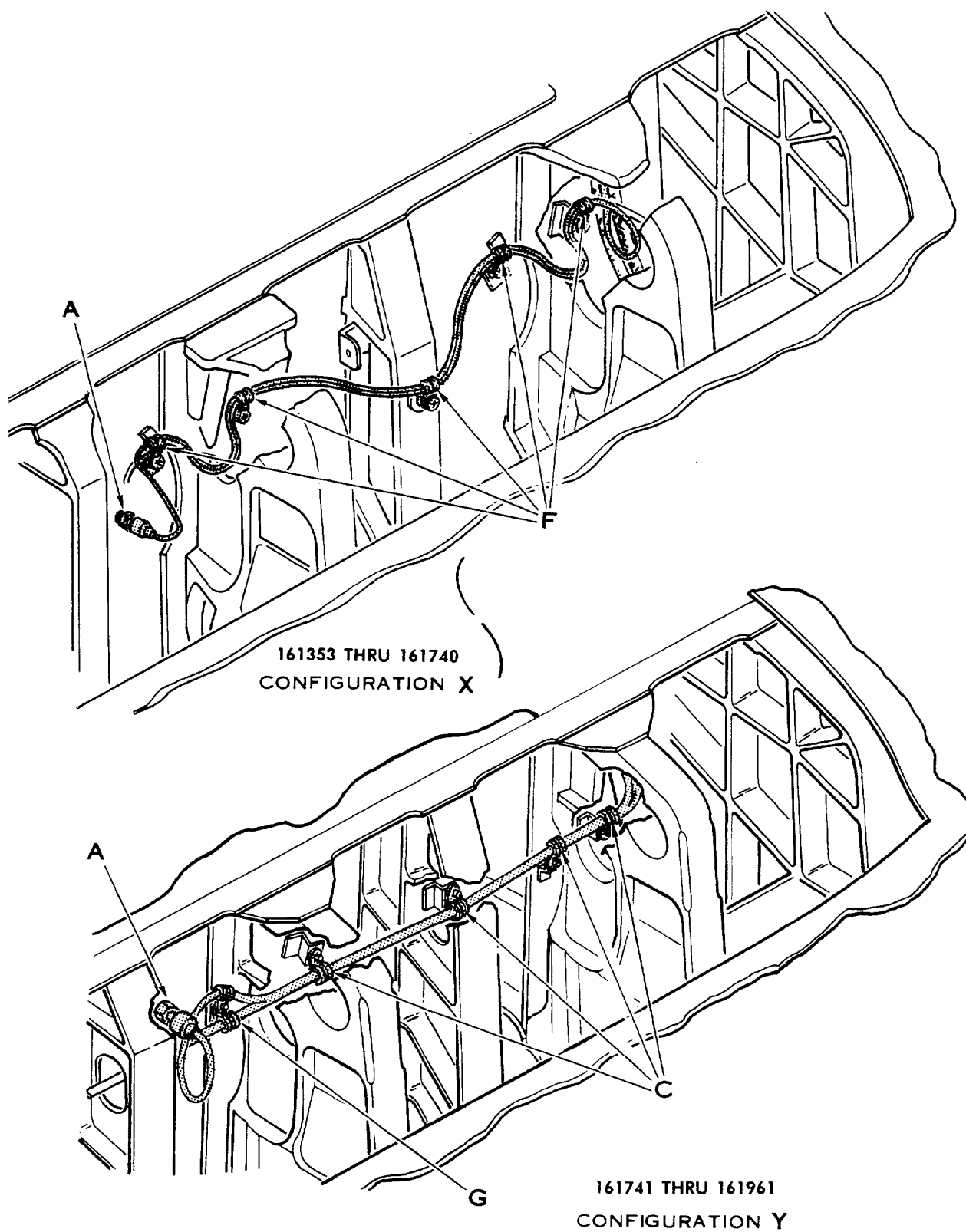


Figure 1. Fuselage Transfer Pressure Transducer (5MTP126) (Sheet 2)

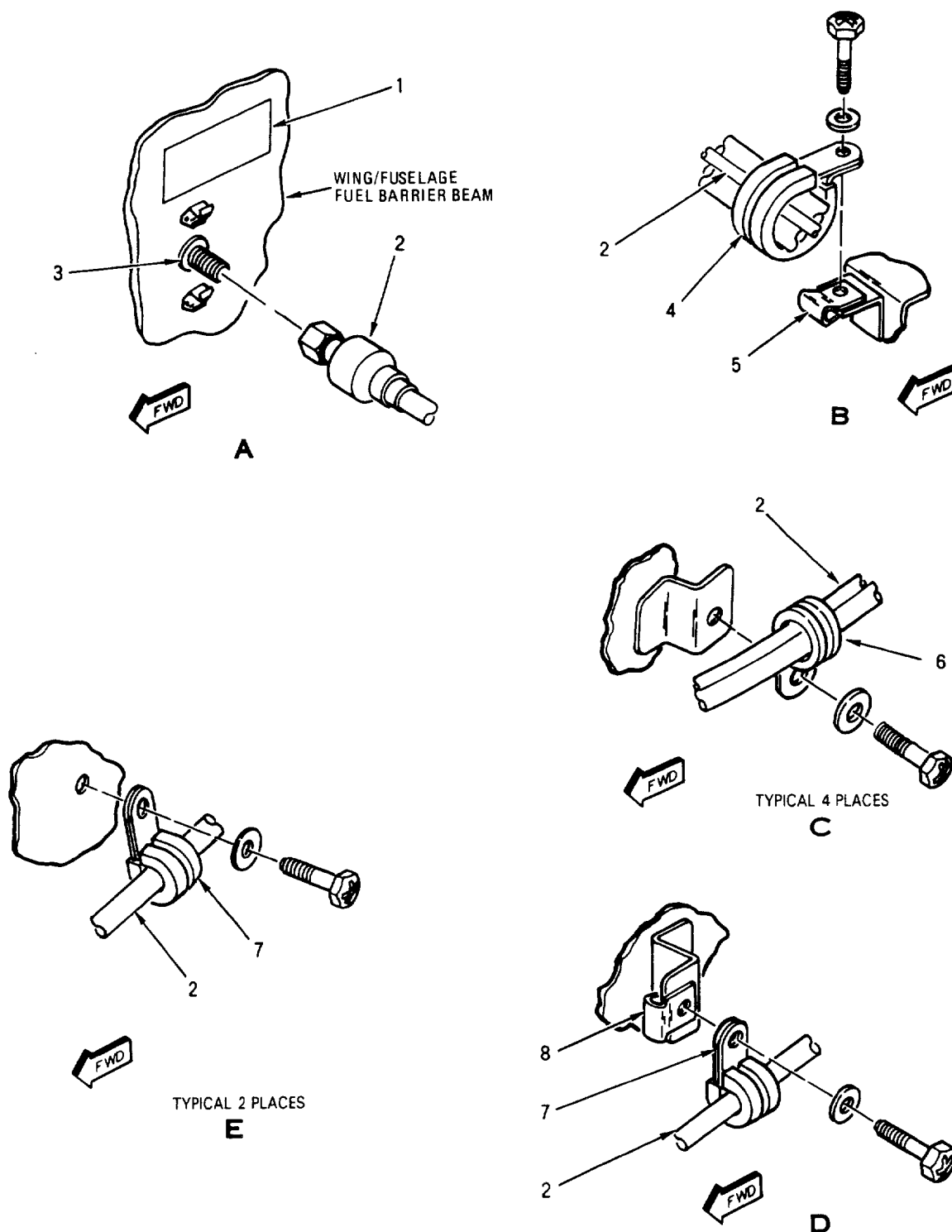
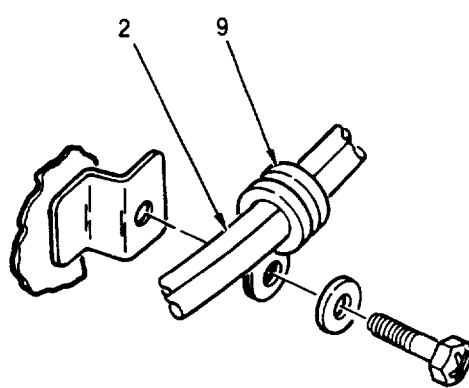
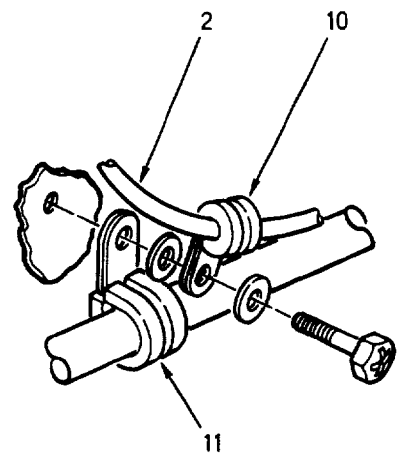


Figure 1. Fuselage Transfer Pressure Transducer (5MTP126) (Sheet 3)



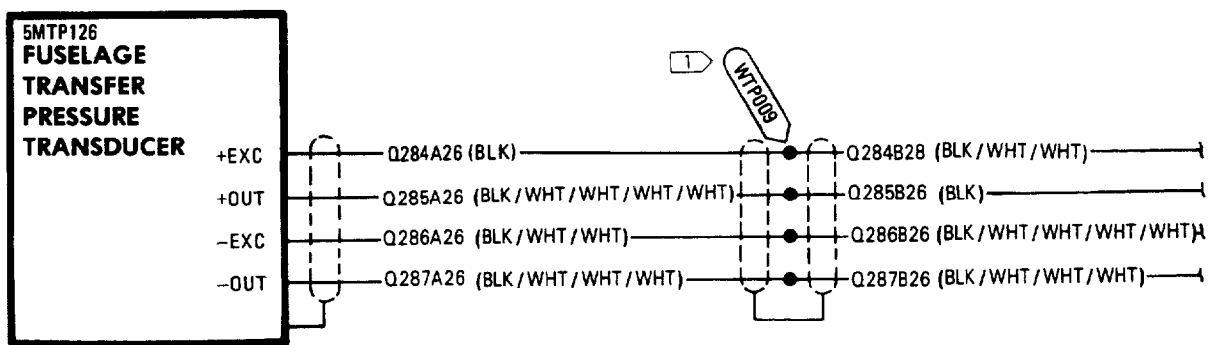
TYPICAL 5 PLACES

F



TYPICAL 5 PLACES

G



TRANSFER PRESSURE TRANSDUCER WIRING HOOKUP

Figure 1. Fuselage Transfer Pressure Transducer (5MTP126) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUSELAGE TRANSFER PRESSURE									
		TRANSDUCER (5MTP126)									
1	74A586555-2049	.	PLATE, IDENTIFICATION (76301)						1		MDOZZ
			(SUPERSEDES 74A586555-2021 & 74A586555-2025)								
2	BM-18-1000-100 1	.	TRANSDUCER, PRESSURE						1		PAOZZ
			(FUSELAGE TRANSFER PRESSURE TRANSDUCER) (34345) (MCDONNELL SPEC 74B580183-141) (5MTP126) (REPLACES BM-14-1000-100 AND BM-5-1000-100) (FOR ASSEMBLY SEE 74A770200)								
	BM-14-1000-100	.	SEE ABOVE (MCDONNELL SPEC 74B580183-129)						1	*	PAOZZ
	BM-5-1000-100	.	SEE ABOVE (MCDONNELL SPEC 74B580183-117)						1	*	PAOZZ
3	74A585757-2001	.	CONNECTOR, TUBE - WING INTERFACE, FUEL TANK PRESS (76301) (LEFT WING) (REPLACES 74A586415-2003)						1		PAOZZ
	74A586415-2003	.	CONNECTOR, TUBE - WING INTERFACE, FUEL TANK PRESS (76301) (LEFT WING) (USE UNTIL EXHAUSTED)						1	A	PAOZZ
4	M85052/1-16	.	CLAMP						1		PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
5	A11144-4-3	.	NUT, CLIP (72962) (MCDONNELL SPEC ST3M523C3M1)						2	B	PAOZZ
6	JM44LC44WD8	.	CLAMP, LOOP (22175) (MCDONNELL SPEC ST9M630D8)						4	E*	PAOZZ
	830WD8G	.	SEE ABOVE (83930)						4	E*	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
7	MS21919WDG2	.	CLAMP						3	B	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
8	A11144-4-3	.	NUT, CLIP (72962) (MCDONNELL SPEC ST3M523C3M1)						1	B	PAOZZ
9	JM44LC44WD8	.	CLAMP, LOOP (22175) (MCDONNELL SPEC ST9M630D8)						5	C*	PAOZZ
	830WD8G	.	SEE ABOVE (83930)						5	C*	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
10	M85052/1-2	.	CLAMP						1	D	PAOZZ
11	JM44LC44WD8	.	CLAMP, LOOP (22175) (MCDONNELL SPEC ST9M630D8)						1	D*	PAOZZ
	830WD8G	.	SEE ABOVE (83930)						1	D*	PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

Figure 1. Fuselage Transfer Pressure Transducer (5MTP126) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161353 THRU 161715	F/A-18A/B
B	161962 & UP	F/A-18A/B
C	161353 THRU 161740	F/A-18A/B
D	161741 THRU 161961	F/A-18A/B
E	161741 & UP	F/A-18A/B

Figure 1. Fuselage Transfer Pressure Transducer (5MTP126) (Sheet 6)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
LEFT BOOST INLET PRESSURE TRANSDUCER (5MTP127)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply Test	WP012 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Wiring Repair with Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Installation	2
Left Boost Inlet Pressure Transducer (5MTP127), Figure 1	4
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

a. Make sure external electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

c. Open door 10R (A1-F18AC-LMM-010).

d. On no. 5 circuit breaker panel assembly, open F EXT circuit breaker (figure 1).

e. Close engine fuel shutoff valve per substeps below:

(1) On cockpit ELEC power control panel, set BATT switch to ON.

(2) On LH and RH advisory and threat warning indicator panels, push L and R engine FIRE warning lights.

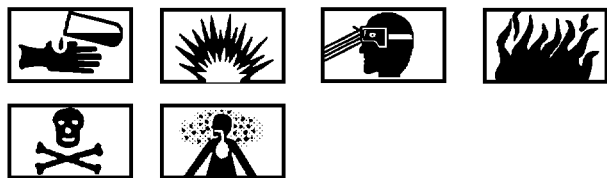


To prevent damage to battery bus contactors and/or batteries, be sure BATT switch is set to OFF and BATT SW caution light is off.

(3) On cockpit ELEC power control panel, set BATT switch to OFF. BATT SW caution light goes out.

(4) On no. 5 circuit breaker panel assembly, open L and R FUEL S/O VALVE circuit breakers.

(5) In left and right MLG wheelwell, on fuel shutoff valve, make sure manual override arm is in CLOSED (-) position.



Jet Fuel

1

f. Position an approved safety container under transducer (7, figure 1, detail E) to catch residual fuel.

g. Disconnect transducer (7) wires at WTP010 splice area.

h. On 161353 THRU 161740, disconnect clamps (1 and 2, configuration detail A, and 5, detail D).

i. On 161741 AND UP, disconnect clamps (3, detail B, 4, detail C, and 5, detail D).

j. Remove clamp (6, detail E), attaching parts and transducer (7).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transducer (7, figure 1, detail E) and nipple (9) for electrical bonding (A1-F18AC-LMM-000).



To prevent damage to transducer and to prevent inaccurate fuel pressure readings, make sure transducer vent holes are not covered.

c. Install transducer (7), clamp (6), and attaching parts.

d. On 161353 THRU 161740, route wire bundle through clamps (1 and 2, configuration detail A, and 5, detail D).

e. On 161741 AND UP, route wire bundle through clamps (3, detail B, 4, detail C, and 5, detail D).

f. Splice wires at WTP010 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q289A26 (BLK) to Q289B26 (BLK/WHT/WHT).

(2) Q290A26 (BLK/WHT/WHT/WHT/WHT) to Q290B26 (BLK).

(3) Q291A26 (BLK/WHT/WHT) to Q291B26 (BLK/WHT/WHT/WHT/WHT).

(4) Q292A26 (BLK/WHT/WHT/WHT) to Q292B26 (BLK/WHT/WHT/WHT).

g. Remove warning tag from external power receptacle.

h. Open engine fuel shutoff valve per substeps below:

(1) On no. 5 circuit breaker panel assembly, close L and R FUEL S/O VALVE circuit breakers.

(2) On cockpit ELEC power control panel, set BATT switch to ON.

(3) on LH and RH advisory and threat warning indicator panels, push L and R engine fire warning lights.



To prevent damage to battery bus contactors and/or batteries, be sure BATT switch is set to OFF and BATT SW caution light is off.

(4) On cockpit ELEC power control panel, set BATT switch to OFF. BATT SW caution light will go out.

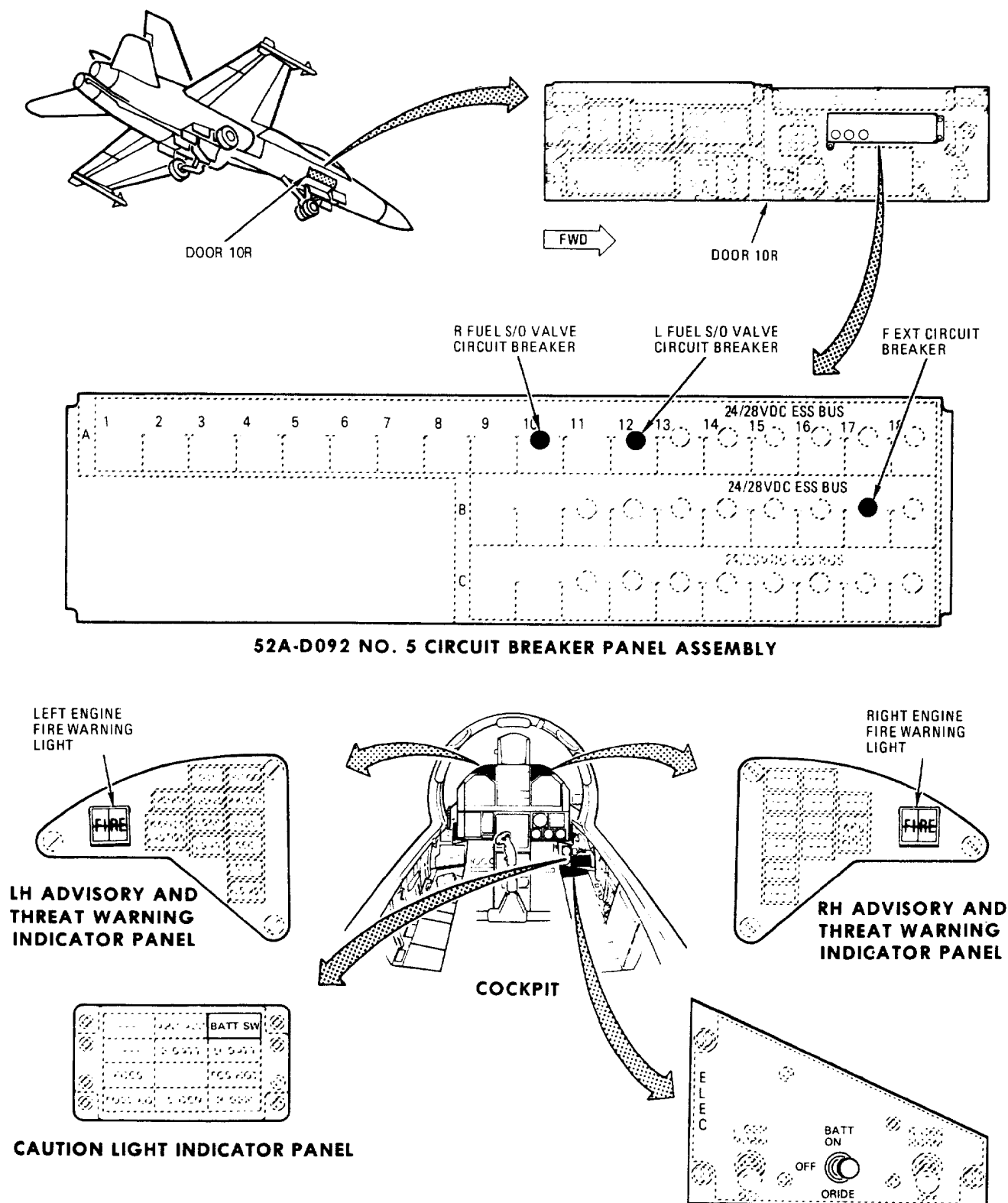
i. On no. 5 circuit breaker panel assembly, close F EXT circuit breaker and close door 10R (A1-F18AC-LMM-010).

j. Do fuel leak test (A1-F18AC-LMM-000).

k. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



06900101

Figure 1. Left Boost Inlet Pressure Transducer (5MTP127) (Sheet 1)

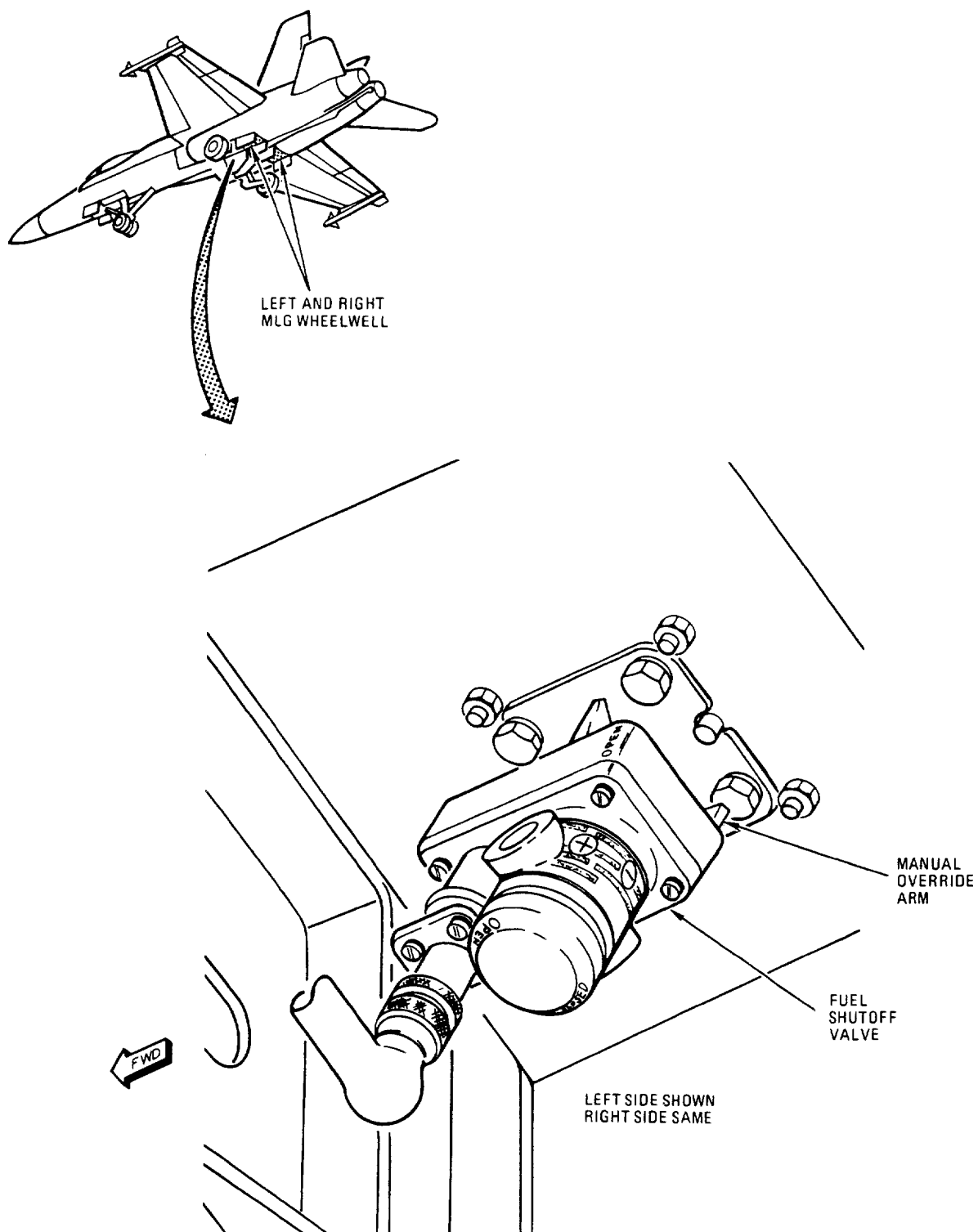


Figure 1. Left Boost Inlet Pressure Transducer (5MTP127) (Sheet 2)

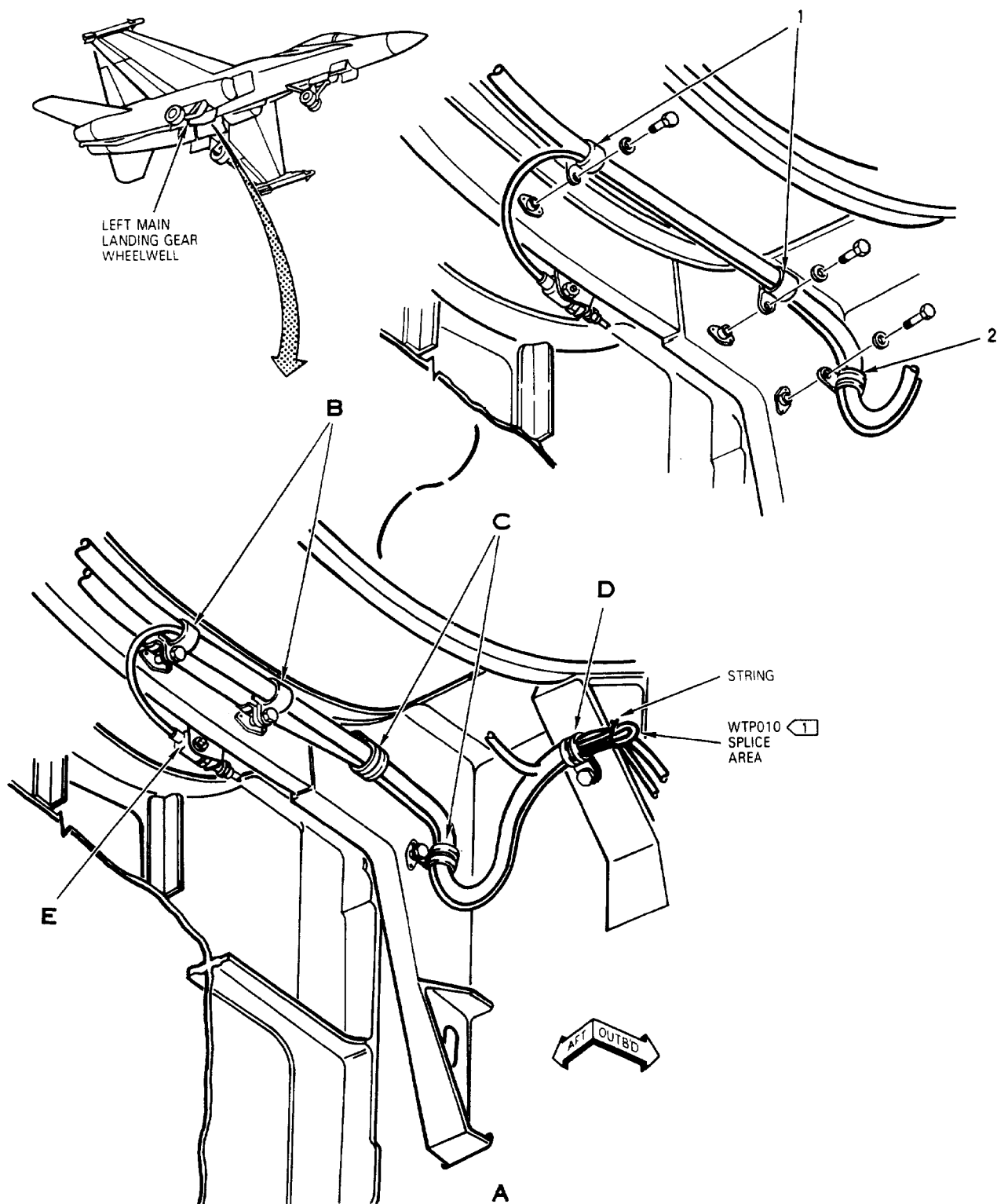
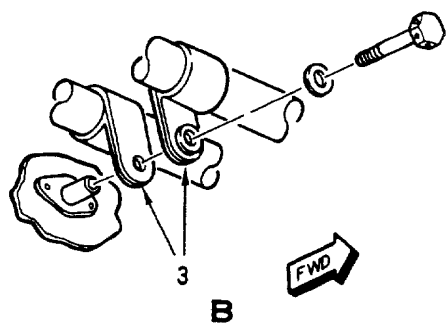
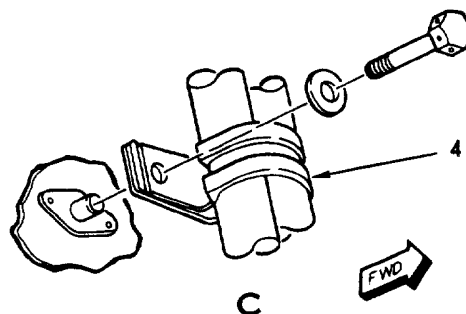


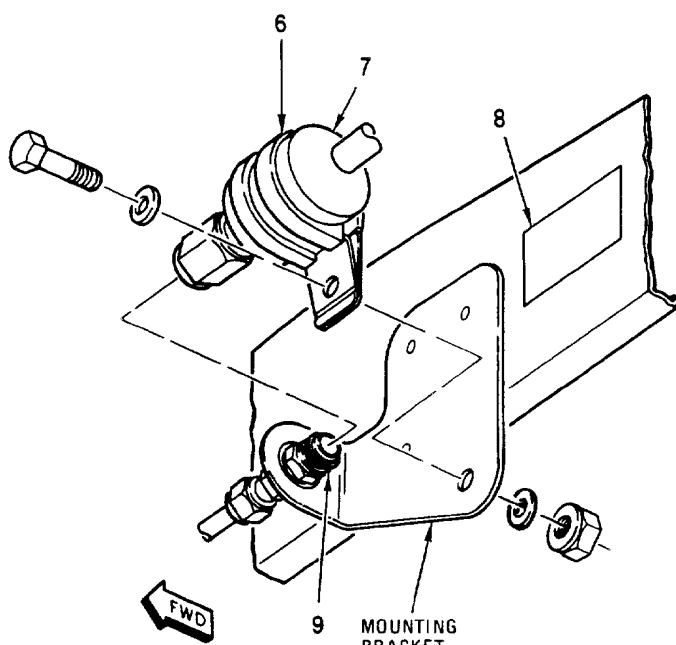
Figure 1. Left Boost Inlet Pressure Transducer (5MTP127) (Sheet 3)



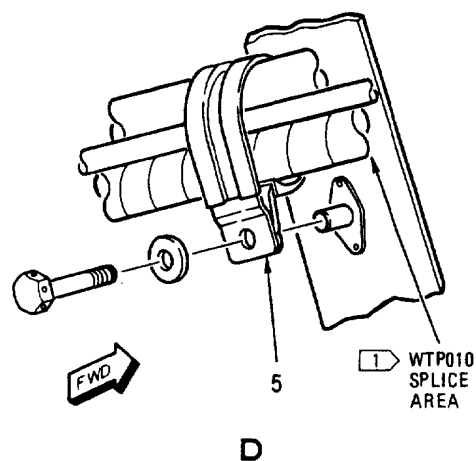
TYPICAL 2 PLACES



TYPICAL 2 PLACES



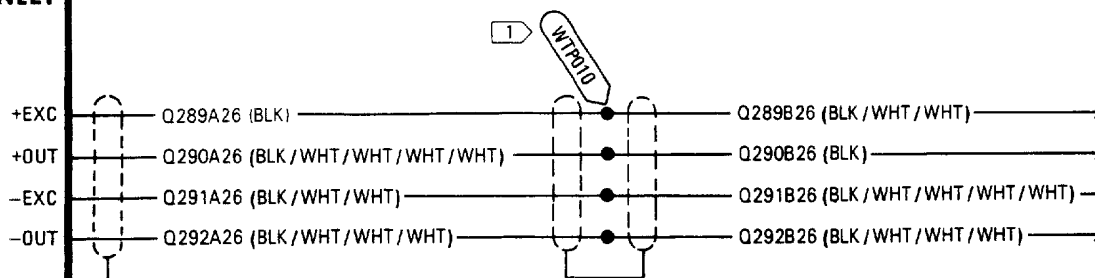
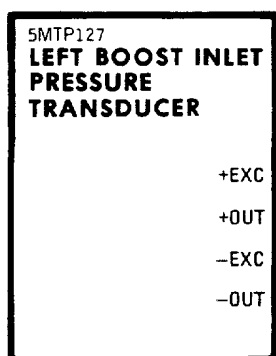
E



D

LEGEND

1 TO LOCATE WIRE TERMINAL REPAIR INFORMATION IN A1-F18AC-WRM-000, USE WRA REFERENCE DESIGNATOR AND TERMINAL NUMBER.



TRANSDUCER WIRING HOOKUP

Figure 1. Left Boost Inlet Pressure Transducer (5MTP127) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		LEFT BOOST INLET PRESSURE									
		TRANSDUCER (5MTP127)									
1	MS25281-R15	.	CLAMP						2	A	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
2	JM44LC33WD15	.	CLAMP, LOOP (22175) (MCDONNELL						1	A*	PAOZZ
			SPEC ST9M630D15)								
	830WD15G	.	SEE ABOVE (83930)						1	A*	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
3	MS25281-R8	.	CLAMP (SUPERSEDES MS25281-8)						2	B	PAOZZ
	NAS673V5	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
4	JM44LC33WD15	.	CLAMP, LOOP (22175) (MCDONNELL						2	B*	PAOZZ
			SPEC ST9M630D15)								
	830WD15G	.	SEE ABOVE (83930)						2	B*	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
5	JM44LC33WD18	.	CLAMP, LOOP (22175) (MCDONNELL						1	*	PAOZZ
			SPEC ST9M630D18)								
	830WD18G	.	SEE ABOVE (83930)						1	*	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
6	JM44LC33WD16	.	CLAMP, LOOP (22175) (MCDONNELL						1	*	PAOZZ
			SPEC ST9M630D16)								
	830WD16G	.	SEE ABOVE (83930)						1	*	PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
	NAS1291C3M	.	NUT (AP)						1		PAOZZ
7	BM-18-1000-50	.	TRANSDUCER, PRESSURE (LEFT						1		PAOZZ
			BOOST INLET PRESSURE								
			TRANSDUCER) (34345)								
			(MCDONNELL SPEC 74B580183-139)								
			(5MTP127) (FOR ASSEMBLY								
			SEE 74A770200)								
	BM-14-1000-25	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74B580183-125)								
	BM-5-1000-25	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74B580183-113)								
8	74A586555-2057	.	MARKER, IDENTIFICATION (76301)						1		MDOZZ
			(SUPERSEDES 74A885621-2579)								
9	7M637BT-4D	.	NIPPLE (76301)						1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161740	F/A-18A/B
B	161741 & UP	F/A-18A/B

Figure 1. Left Boost Inlet Pressure Transducer (5MTP127) (Sheet 5)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
RIGHT BOOST INLET PRESSURE TRANSDUCER (5MTR128)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Removal	1
Right Boost Inlet Pressure Transducer (5MTR128), Figure 1	4
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

c. Open door 10R (A1-F18AC-LMM-010).

d. On no. 5 circuit breaker panel, open F EXT circuit breaker (figure 1).

e. Close engine fuel shutoff valve per substeps below:

(1) On cockpit ELEC power control panel, set BATT switch to ON.

(2) On LH and RH advisory and threat warning indicator panel, push L and R engine FIRE warning lights.

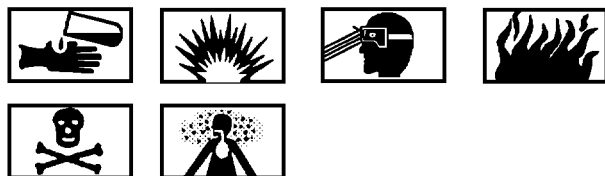


To prevent damage to battery bus contactors and/or batteries, be sure BATT switch is set to OFF and BATT SW caution light is off.

(3) On cockpit ELEC power control panel, set BATT switch to OFF. BATT SW caution light goes out.

(4) On no. 5 circuit breaker panel assembly, open L and R FUEL S/O VALVE circuit breakers.

(5) In left and right MLG wheelwell, on fuel shutoff valve, make sure manual override arm is in CLOSED (-) position.



Jet Fuel

1

f. Position an approved safety container under transducer (9, figure 1, detail F) to catch residual fuel.

g. Disconnect transducer (9) wires at WTR007 splice area.

h. On 161353 THRU 161740, disconnect clamps (1, configuration detail A, 3, detail B, 4, detail C, 5, detail D) by removing attaching parts.

i. On 161741 AND UP, disconnect clamps (3, detail B, 4, detail C, 5, detail D and 6 and 7, detail E) by removing attaching parts.

j. Remove transducer (9).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000)

b. Prepare mating surfaces of transducer (9, detail F) and nipple (10) for electrical bonding (A1-F18AC-LMM-000).



To prevent damage to transducer and to prevent inaccurate fuel pressure readings, make sure transducer vent holes are not covered.

c. Install transducer (9), clamp (8) and attaching parts, then seal electrical bond area (A1-F18AC-LMM-000).

d. Splice wires at WTR007 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q294B26 (BLK/WHT/WHT) to Q294A26 (BLK).

(2) Q295B26 (BLK) to Q295A26 (BLK/WHT/WHT/WHT/WHT).

(3) Q296B26 (BLK/WHT/WHT/WHT/WHT) to Q296A26 (BLK/WHT/WHT).

(4) Q297B26 (BLK/WHT/WHT/WHT) to Q297A26 (BLK/WHT/WHT/WHT).

e. On 161353 THRU 161740, install clamps (1, configuration detail A, 3, detail B, 4, detail C, 5, detail D).

f. On 161741 AND UP, install clamps (3, detail B, 4, detail C, 5, detail D and 6 and 7, detail E).

g. Remove no power tag from external power receptacle.

h. Open engine fuel shutoff valve per substeps below:

(1) On no. 5 circuit breaker panel assembly, close L and R FUEL S/O VALVE circuit breakers.

(2) On cockpit ELEC power control panel, set BATT switch to ON.

(3) On LH and RH advisory and threat warning indicator panels, push left and right engine FIRE warning lights.



To prevent damage to battery bus contactors and/or batteries, be sure BATT switch is set to OFF and BATT SW caution light is off.

(4) On cockpit ELEC power control panel, set BATT switch to OFF. BATT SW caution light goes out.

i. On no. 5 circuit breaker panel assembly, close F EXT circuit breaker.

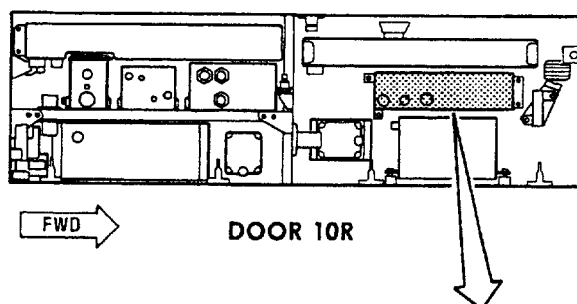
j. Close door 10R (A1-F18AC-LMM-010).

k. Do fuel leak test (A1-F18AC-LMM-000).

l. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



52A-D092 NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY			
ZONE	RES DEF	NOMENCLATURE	BUS
A10	5CBD064	R FUEL S/O VALVE CIRCUIT BREAKER	24/28 VDC ESS
A12	5CBD066	L FUEL S/O VALVE CIRCUIT BREAKER	24/28 VDC ESS
B17	4CBD100	F EXT CIRCUIT BREAKER	24/28 VDC ESS

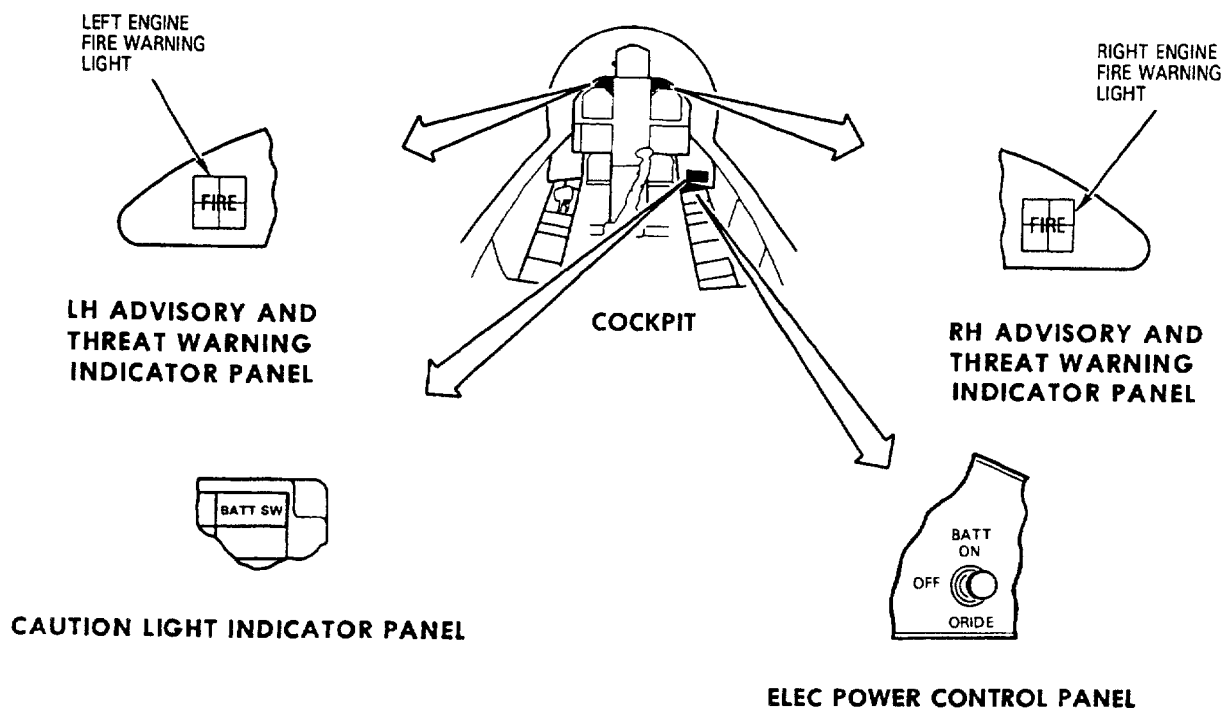


Figure 1. Right Boost Inlet Pressure Transducer (5MTR128) (Sheet 1)

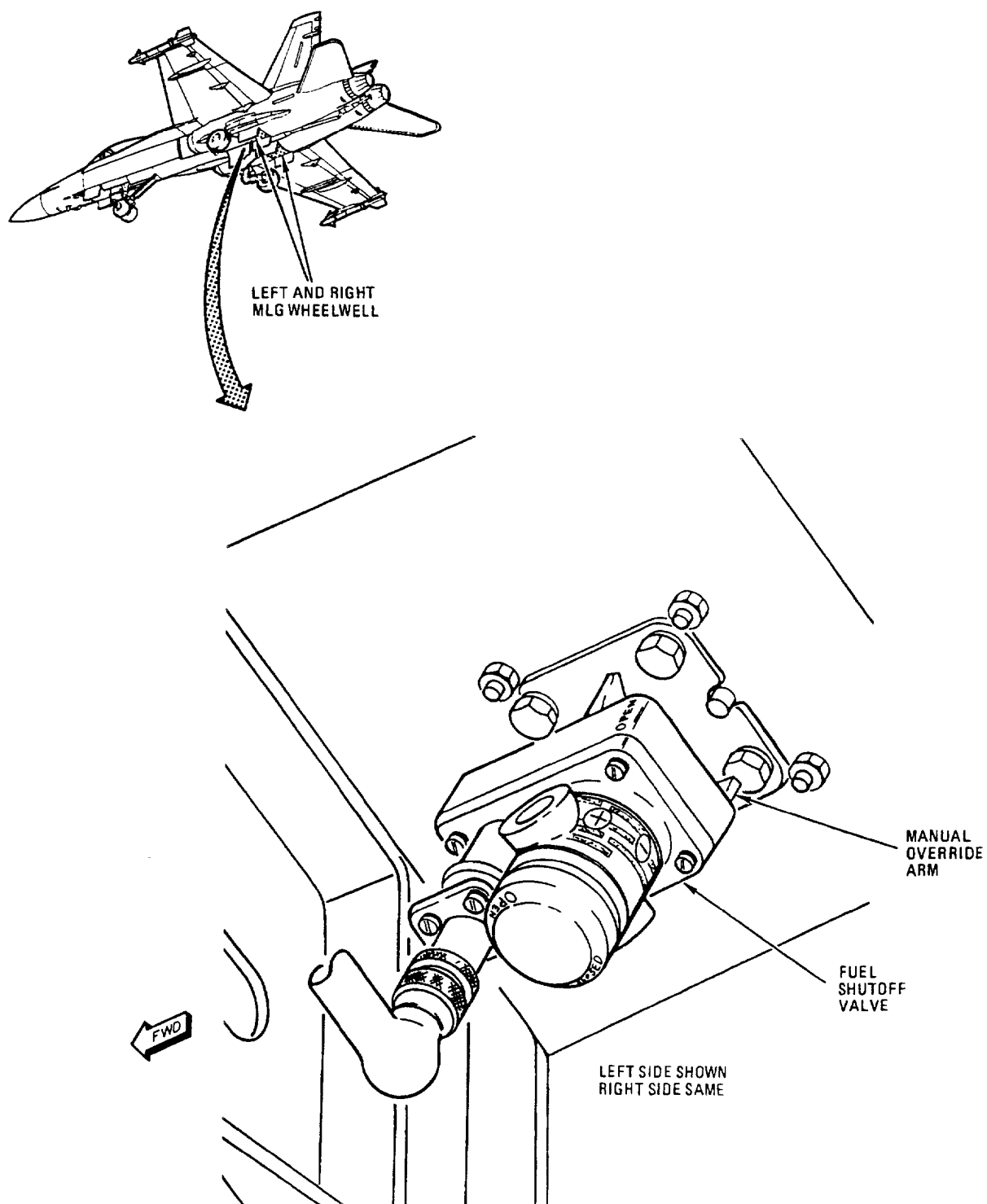


Figure 1. Right Boost Inlet Pressure Transducer (5MTR128) (Sheet 2)

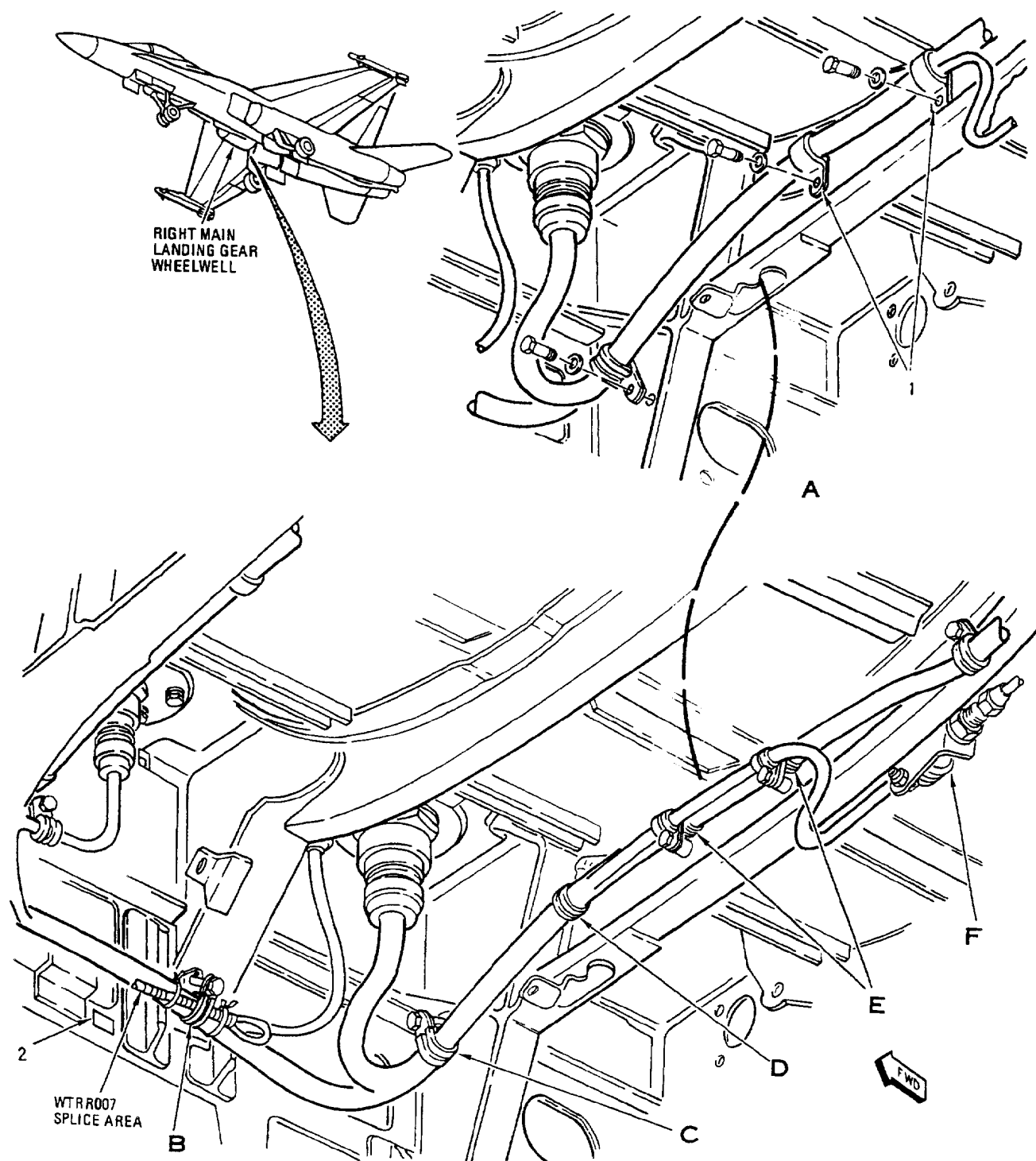
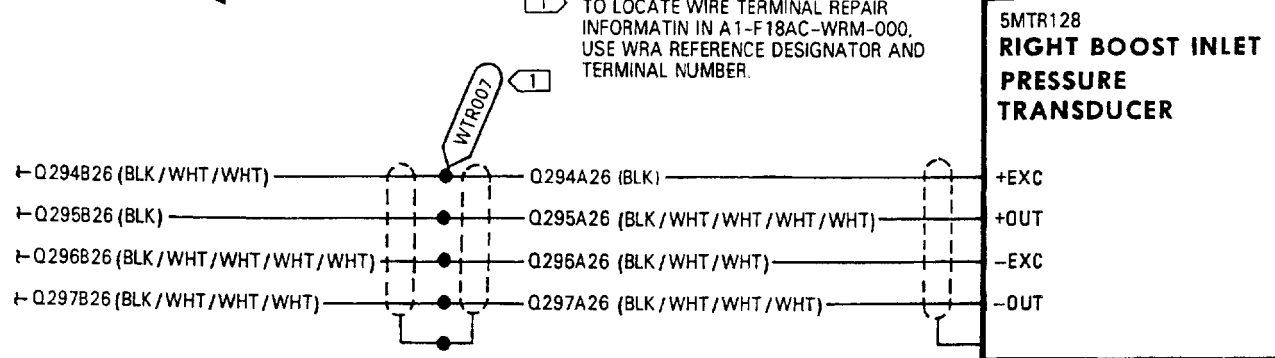
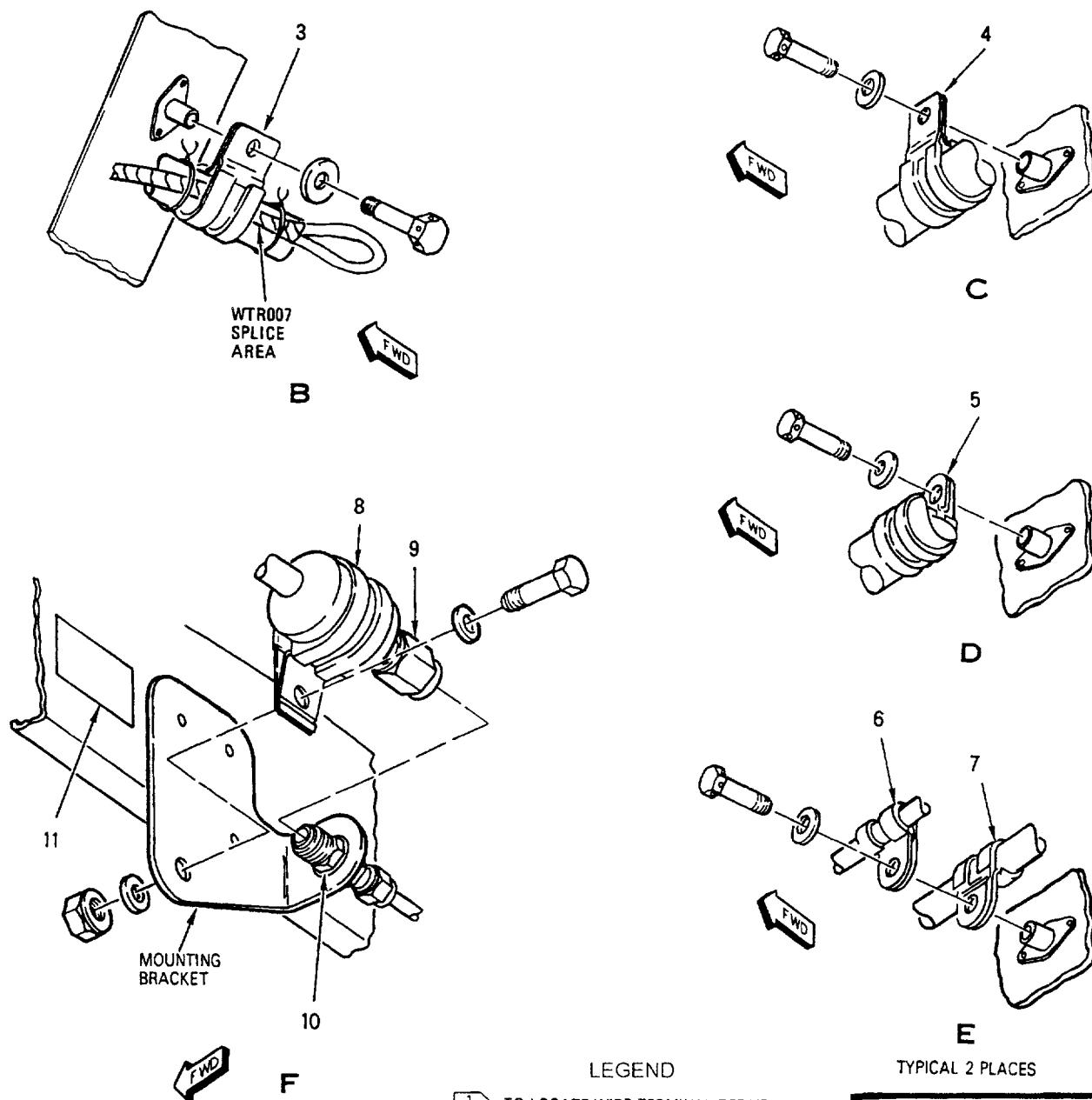


Figure 1. Right Boost Inlet Pressure Transducer (5MTR128) (Sheet 3)



TRANSDUCER WIRING HOOKUP

Figure 1. Right Boost Inlet Pressure Transducer (5MTR128) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		RIGHT BOOST INLET PRESSURE								
		TRANSDUCER (5MTR128)								
1	MS25281-F10	.	CLAMP					2	A	PAOZZ
	NAS673V2	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
2	74A885621-2169	.	MARKER, IDENTIFICATION					1		MDOZZ
			AVIONICS (76301)							
3	JM44LC44WD8	.	CLAMP, LOOP (22175) (MCDONNELL					1	*	PAOZZ
			SPEC ST9M630D8)							
	830WD8G	.	SEE ABOVE (83930)					1	*	PAOZZ
	NAS673V2	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
4	JM44LC44WD10	.	CLAMP, LOOP (22175) (MCDONNELL					1	*	PAOZZ
			SPEC ST9M630D10)							
	830WD10G	.	SEE ABOVE (83930)					1	*	PAOZZ
	NAS673V2	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
5	MS25281-F10	.	CLAMP (SUPERSEDES MS25281-10)					1	B	PAOZZ
	NAS673V3	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
6	MS25281-R4	.	CLAMP (SUPERSEDES MS25281-4)					2	B	PAOZZ
7	MS25281-R6	.	CLAMP (SUPERSEDES MS25281-6)					2	B	PAOZZ
	NAS673V5	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
8	JM44LC33WD16	.	CLAMP, LOOP (22175) (MCDONNELL					1	*	PAOZZ
			SPEC ST9M630D16)							
	830WD16G	.	SEE ABOVE (83930)					1	*	PAOZZ
	NAS673V3	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP) (UNDER BOLT AND NUT)					2		PAOZZ
	NAS1291C3M	.	NUT (AP)					1		PAOZZ
9	BM-18-1000-50	.	TRANSDUCER, PRESSURE (RIGHT					1		PAOZZ
			BOOST INLET PRESSURE							
			TRANSDUCER) (34345)							
			(MCDONNELL SPEC 74B580183-139)							
			(5MTR128) (FOR ASSEMBLY							
			SEE 74A770200)							
	BM-14-1000-25	.	SEE ABOVE (MCDONNELL					1	*	PAOZZ
			SPEC 74B580183-125)							
10	7M637BT-4D	.	NIPPLE (76301)					1		PAOZZ
11	74A586555-2059	.	MARKER, IDENTIFICATION -					1		MGOZZ
			AVIONICS (76301) (SUPERSEDES							
			74A885621-2631 & 74A885621-2580)							

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161740	F/A-18A/B
B	161741 & UP	F/A-18A/B

Figure 1. Right Boost Inlet Pressure Transducer (5MTR128) (Sheet 5)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
VENT TANK PRESSURE TRANSDUCER (5MTT129)
REFUEL/DEFUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-200
Fuel Pressurization and Vent System Test	WP021 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Power Plant and Related Systems	A1-F18AC-270-300
Removal and Installation - Engine	WP003 00
Wiring Repair with Parts Data General Wiring Repair Procedures	A1-F18AC-WRM-000

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Removal	1
Support Equipment Required	1
Vent Tank Pressure Transducer (5MTT129), Figure 1	4

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a. Remove left engine (A1-F18AC-270-300, WP003 00).

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

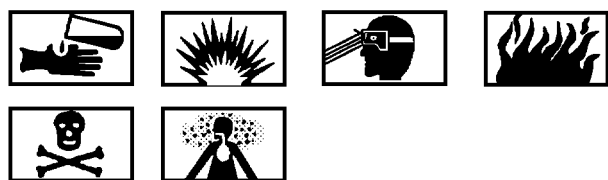
c. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

d. Remove internal door EBB (A1-F18AC-LMM-010).

e. Drain vent tank (A1-F18AC-LMM-000).

Materials Required

Nomenclature	Specification or Part Number
Cheesecloth	CCC-C-440, Type 1, Class 1 (CAGE 81348)
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)
Sealing Compound	MIL-S-8802, Type 2 Class A-1/2 (CAGE 81348)
Wire, Safety, Nonelectrical	MS20995NC20 (CAGE 96906)



Jet Fuel

1

f. Position an approved safety container under transducer (5, figure 1, detail B) to catch residual fuel.

g. Disconnect clamps (4, detail A) by removing attaching parts.

h. Remove transducer (5) wires from connector (1) (A1-F18AC-WRM-000).

NOTE

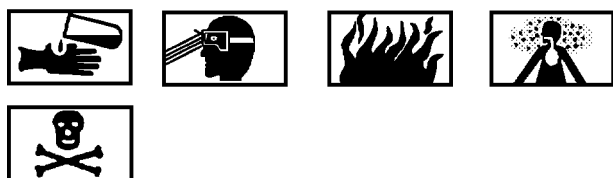
Do not remove elbow from reducer.

i. Remove transducer (5, with clamp 7, and attaching parts, detail B) from elbow (6).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. If elbow (6, figure 1) was inadvertently removed, install per substeps below:

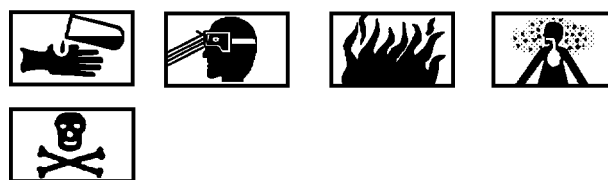


Isopropyl Alcohol

3

(1) Clean sealing compound from elbow (6) and reducer using cheesecloth moistened with isopropyl alcohol. Wipe area with clean dry cheesecloth before isopropyl alcohol evaporates. Repeat procedure until no visible contamination remains.

(2) Install elbow (6) on reducer.



Sealing Compound

6

NOTE

Torquing of elbow must be complete before applying sealing compound.

(3) Apply 0.50 inch bead of sealing compound along metal to metal contact area of nut and reducer (view C). Make sure sealing compound laps nut and reducer.

(4) Allow sealing compound to cure (8 hours at 77° F) before refueling.

c. Prepare mating surfaces of transducer (5) and elbow (6) for electrical bonding (A1-F18AC-LMM-000).



To prevent damage to transducer and to prevent inaccurate fuel pressure readings, make sure transducer vent holes are not covered.

d. Install transducer (5, with clamp 7, detail B) and attaching parts.

e. Route wire bundle through clamps (4, detail A), then connect clamps by installing attaching parts.

f. Install wires into connector (1) (A1-F18AC-WRM-000) per substeps below:

(1) Q262A26 (BLK) to pin 15.

(2) Q263A26 (BLK/WHT/WHT/WHT/WHT) to pin 16.

(3) Q264A26 (BLK/WHT/WHT) to pin 21.

(4) Q265A26 (BLK/WHT/WHT/WHT) to pin 22.

g. Safety connector (2) with lockwire. (QA)

h. Remove warning tag from external power receptacle.

- i. Do pressurization and vent system test (A1-F18AC-460-200, WP021 00).
- j. Install internal door EBB (A1-F18AC-LMM-010).
- k. Install left engine (A1-F18AC-270-300, WP003 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

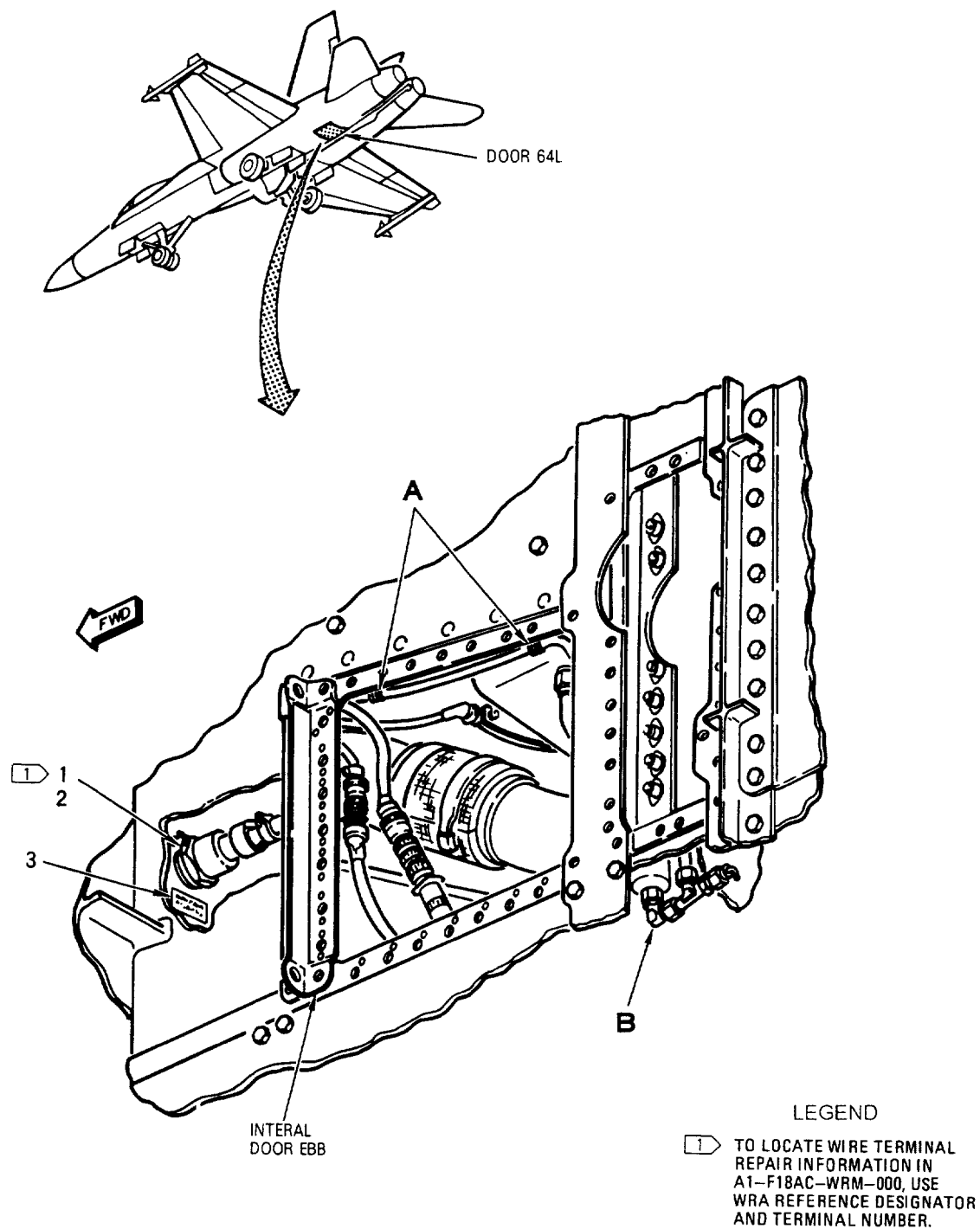
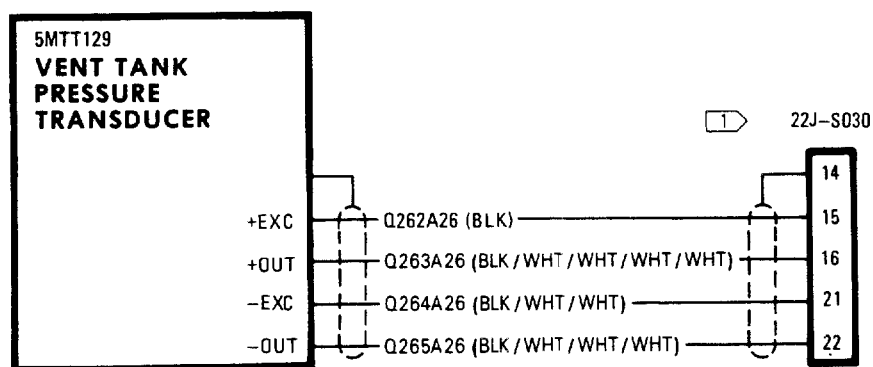
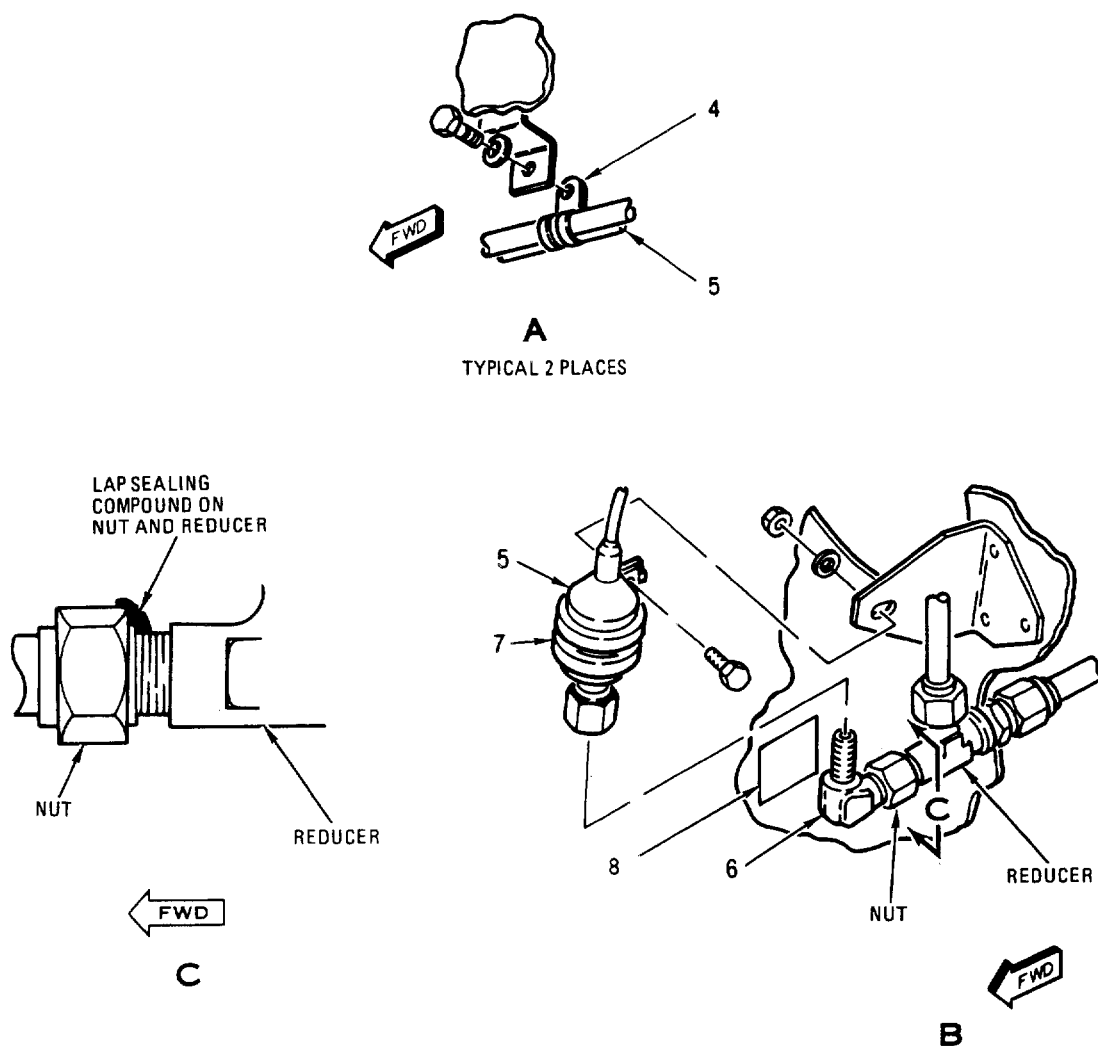


Figure 1. Vent Tank Pressure Transducer (5MTT129) (Sheet 1)



TRANSDUCER WIRING HOOKUP

Figure 1. Vent Tank Pressure Transducer (5MTT129) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		VENT TANK PRESSURE TRANSDUCER									
		(5MTT129)									
1	D38999/24KC35PN	.						CONNECTOR, RECEPTACLE	1		PAOZZ
								(81349) (22J-S030)			
2	D38999/26KH35PN	.						CONNECTOR, PLUG (81349)	1		PAOZZ
								(52P-R102)			
3	74A885621-2236	.						MARKER, IDENTIFICATION -	1		MDOZZ
								AVIONICS (76301)			
4	M85052-3-6	.						CLAMP	2		PAOZZ
	NAS673V1	.						BOLT (AP)	1		PAOZZ
	AN960JD10	.						WASHER (AP)	1		PAOZZ
5	BM-18-1000-10	.						TRANSDUCER, PRESSURE (34345)	1		PAOZZ
								(MCDONNELL SPEC			
								74B580183-135) (5MTT129)			
								(REPLACES BM-14-1000-10 AND			
								BM-5-1000-10) (FOR ASSEMBLY			
								SEE 74A770200)			
	BM-14-1000-10	.						SEE ABOVE (MCDONNELL	1	*	PAOZZ
								SPEC 74B580183-123)			
	BM-5-1000-10	.						SEE ABOVE (MCDONNELL	1	*	PAOZZ
								SPEC 74B580183-111)			
	MS29512-04	.						PACKING (USE WITH INDEX 4)	1		PAOZZ
6	ST7M263J4	.						ELBOW (76301)	1		PAOZZ
7	JM44LC33WD16	.						CLAMP, LOOP (22175)	1	*	PAOZZ
								(MCDONNELL SPEC ST9M630D16)			
	830WD16G	.						SEE ABOVE (83930)	1	*	PAOZZ
	NAS673V2	.						BOLT (AP)	1		PAOZZ
	AN960C10L	.						WASHER (AP)	1		PAOZZ
	NAS1291C3M	.						NUT (AP)	1		PAOZZ
8	74A586555-2051	.						PLATE IDENTIFICATION (76301)	1		MDOZZ
								(SUPERSEDES 74A586555-2033			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Vent Tank Pressure Transducer (5MTT129) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**EXTERNAL TANKS AIR PRESSURE TRANSDUCER
(5MTR130)**

REFUEL/DEFUEL SYSTEM

Title	WP Number
External Tanks Air Pressure Transducer 161353 THRU 161741	WP072 01
External Tanks Air Pressure Transducer 161742 AND UP	WP072 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL TANKS AIR PRESSURE TRANSDUCER
(5MTR130)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161353 THRU 161741

Reference Material

Fuel System	A1-F18AC-460-200
Refuel/Transfer Test, External Fuel System	WP007 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Secondary Power System	A1-F18AC-240-300
APU Accumulator and Start Valve Assembly	WP007 00
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Illustrated Parts Breakdown	2
Illustration	3
Parts List	5
Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a Make sure electrical power is not applied
(A1-F18AC-LMM-000).

b. Tag aircraft electrical power receptacle with
applicable warning to indicate external power is not to
be applied to the aircraft.

c. Remove doors 42 and 47 (A1-F18AC-LMM-
010).

d. Remove APU accumulator start valve assembly
(A1-F18AC-240-300, WP007 00).

Materials Required

Nomenclature	Specification or Part Number
Tape, Lacing	MIL-T-43435, Type-2, Size-3, Finish-C (CAGE 81349)

e. Disconnect clamp (8, figure 1) by removing attaching parts.

f. Disconnect clamp (6, detail A) by removing bolt (5) and attaching part.

g. Working through door 47, disconnect transducer wire (2) at WTR005 splice area (detail B).

h. Working through aft end of door 42, remove transducer (2).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transducer (2, figure 1, detail A) and nipple (3) for electrical bonding (A1-F18AC-LMM-000).

c. Install transducer (2).

d. Route transducer (2) wire bundle through clamps (8 and 6, details B and A) then install clamp (8) attaching part and bolt (5) and attaching part.

e. Tie wire bundle with lacing tape.

f. Splice wires together at WTR005 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q224A26 (BLK) to Q224B26 (BLK/WHT/WHT).

(2) Q225A26 (BLK/WHT/WHT/WHT/WHT) to Q225B26 (BLK).

(3) Q226A26 (BLK/WHT/WHT) to (BLK/WHT/WHT/WHT/WHT).

(4) Q227A26 (BLK/WHT/WHT/WHT) to Q227B26 (BLK/WHT/WHT/WHT).

g. Remove no power tag from external power receptacle.

h. Do external fuel tanks transfer test, (A1-F18AC-LMM-000) or external fuel system transfer test, (A1-F18AC-460-200, WP007 00).

i. Install APU accumulator start valve assembly (A1-F18AC-240-300, WP007 00).

j. Close doors 42 and 47 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

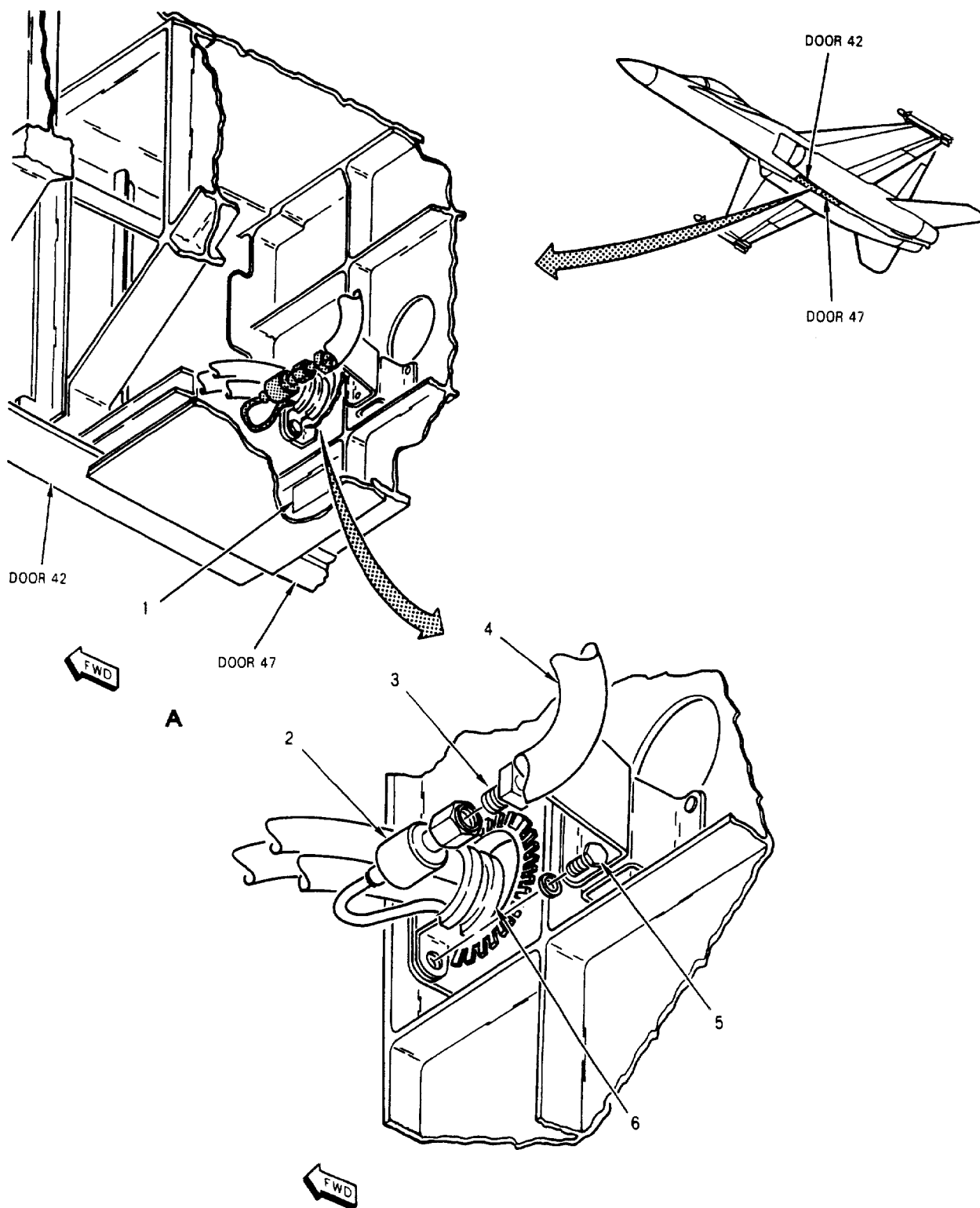


Figure 1. External Tanks Air Pressure Transducer (5MTR130) (Sheet 1)

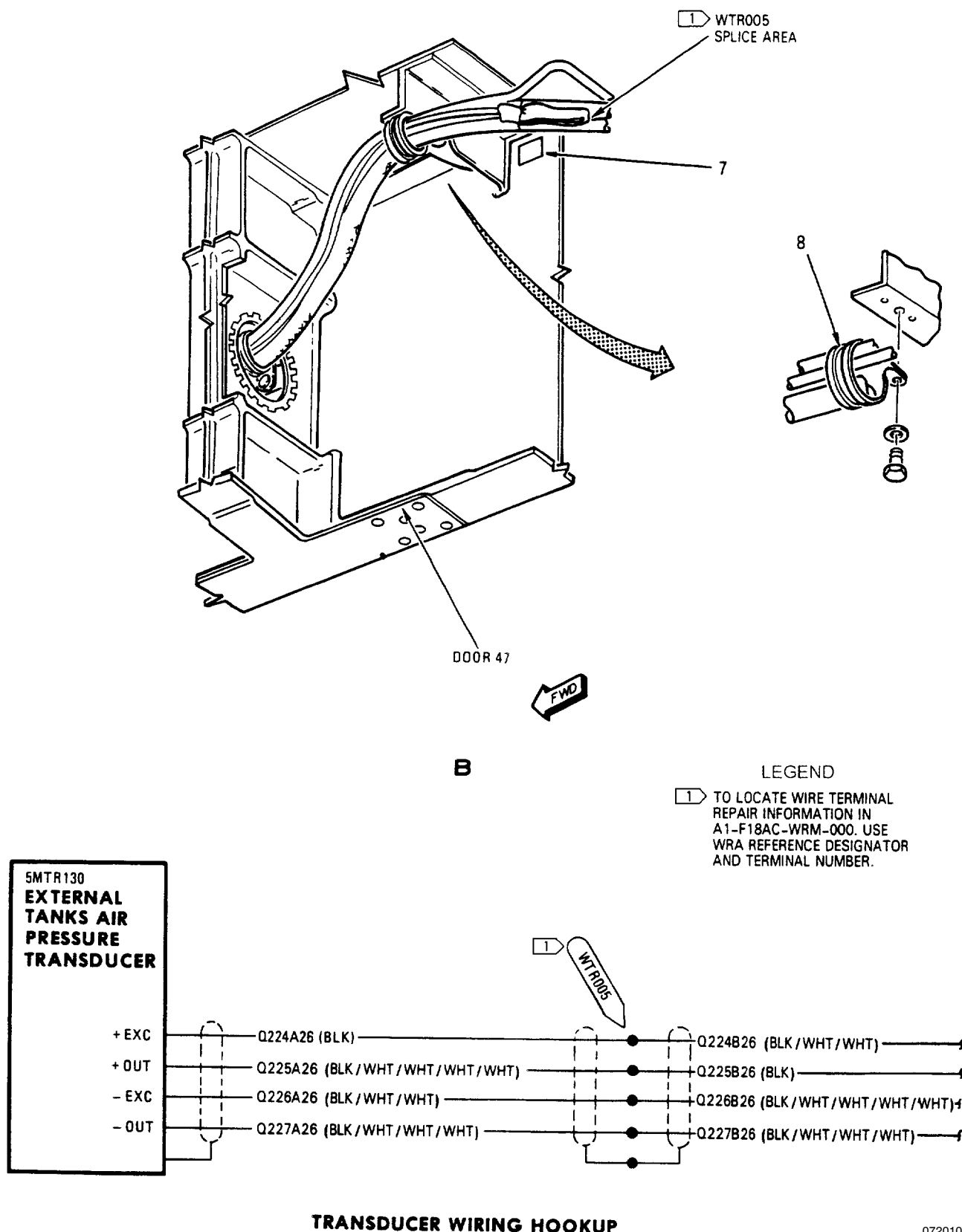


Figure 1. External Tanks Air Pressure Transducer (5MTR130) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL TANKS AIR PRESSURE									
		TRANSDUCER (5MTR130)									
1	74A586555-2053	.						PLATE IDENTIFICATION -	1		MDOZZ
		.						FUEL SYSTEM 1 (76301)			
2	BM-18-1000-50	.						TRANSDUCER, PRESSURE	1		PAOZZ
		.						(EXTERNAL TANKS AIR			
		.						PRESSURE TRANSDUCER)			
		.						(34345) (MCDONNELL SPEC			
		.						74B580183-139) (REPLACES			
		.						BM-5-1000-50 AND BM-74-1000-50)			
		.						(5MTR130) (FOR ASSEMBLY			
		.						SEE 74A770200)			
	BM-14-1000-50	.						SEE ABOVE (MCDONNELL	1	*	PAOZZ
		.						SPEC 74B580183-127)			
	BM-5-1000-50	.						SEE ABOVE (MCDONNELL	1	*	PAOZZ
		.						SPEC 74B580183-115)			
3	7M637BD-4D	.						NIPPLE, TUBE (76301)	1		PAOZZ
	MS29512-04	.						PACKING (USE WITH INDEX 3)	1		PAOZZ
4	74A586719-1001	.						TUBE ASSEMBLY, METAL -	1	A	PAOZZ
		.						FUEL PRESSURIZATION			
		.						SYSTEM, Y484 (76301)			
	74A586719-1005	.						TUBE ASSEMBLY, METAL -	1	B	PAOZZ
		.						FUEL PRESSURIZATION			
		.						SYSTEM, Y484 (76301)			
5	NAS673V3	.						BOLT	1		PAOZZ
	AN960JD10L	.						WASHER (USE WITH INDEX 5)	1		PAOZZ
	130091	.						NUT, CLIP (76530) (MCDONNELL	1	*	PAOZZ
		.						SPEC ST3M523C3M-1) (USE			
		.						WITH INDEX 5)			
	A11144-4-3	.						NUT, CLIP (72962) (MCDONNELL	1	*	PAOZZ
		.						SPEC ST3M523C3M-1) (USE			
		.						WITH INDEX 5)			
6	JM44LC33WD14	.						CLAMP, LOOP (22175) (MCDONNELL	1	*	PAOZZ
		.						SPEC ST9M630D14)			
	830WD14G	.						SEE ABOVE (83930)	1	*	PAOZZ
7	74A885621-2167	.						MARKER, IDENTIFICATION (76301)	1		MDOZZ
8	JM44LC33WD16	.						CLAMP, LOOP (22175) (MCDONNELL	1	*	PAOZZ
		.						SPEC ST9M630D16)			
	830WD16G	.						SEE ABOVE (83930)	1	*	PAOZZ
	NAS673V2	.						BOLT (AP)	1		PAOZZ
	AN960JD10L	.						WASHER (AP)	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161704	F/A-18A/B
B	161705 THRU 161741	F/A-18A/B

Figure 1. External Tanks Air Pressure Transducer (5MTR130) (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EXTERNAL TANKS AIR PRESSURE TRANSDUCER
(5MTR130)****REFUEL/DEFUEL SYSTEM****EFFECTIVITY: 161742 AND UP****Reference Material**

Fuel System	A1-F18AC-460-200
Refuel/Transfer Test, External Fuel System	WP007 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Secondary Power System	A1-F18AC-240-300
APU Accumulator and Start Valve Assembly	WP007 00
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Illustration	3
Parts List	5
Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Tape, Lacing	MIL-T-43435, Type-2, Size-3, Finish-C (CAGE 81349)

1. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

c. Remove doors 42 and 47 (A1-F18AC-LMM-010).

d. Disconnect clamps (1, 2, 4, and 5, figure 1) and remove attaching parts.

e. Disconnect clamp (12, detail A) and remove attaching parts.

f. Disconnect transducer wires (3) at WTR005 splice area.

g. Disconnect transducer (3 with clamp 9, and attaching parts) from elbow (6) and remove transducer with wires.

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transducer (3, figure 1) and elbow (6) for electrical bonding (A1-F18AC-LMM-000).



To prevent damage to transducer and to prevent inaccurate fuel pressure readings, make sure transducer vent holes are not covered.

c. Install transducer (3) on elbow (6) with clamp (9) and attaching parts.

d. Route transducer wire bundle through clamps (1, 2, and 4) and clamp (12, detail A). Tie wire bundle with lacing tape.

e. Splice together wires at WTR005 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q224A26 (BLK) to Q224B26 (BLK/WHT/WHT).

(2) Q225A26 (BLK/WHT/WHT/WHT/WHT) to Q225B26 (BLK).

(3) Q226A26 (BLK/WHT/WHT) to Q226B26 (BLK/WHT/WHT/WHT/WHT).

(4) Q227A26 (BLK/WHT/WHT/WHT) to Q227B26 (BLK/WHT/WHT/WHT).

f. Install clamps (1, 2, 4, and 5), clamp (12, detail A) and attaching parts.

g. Remove no power tag from external power receptacle.

h. Do an external fuel tanks transfer test (A1-F18AC-LMM-000) or external fuel system transfer test (A1-F18AC-460-200, WP007 00).

i. Close doors 42 and 47 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

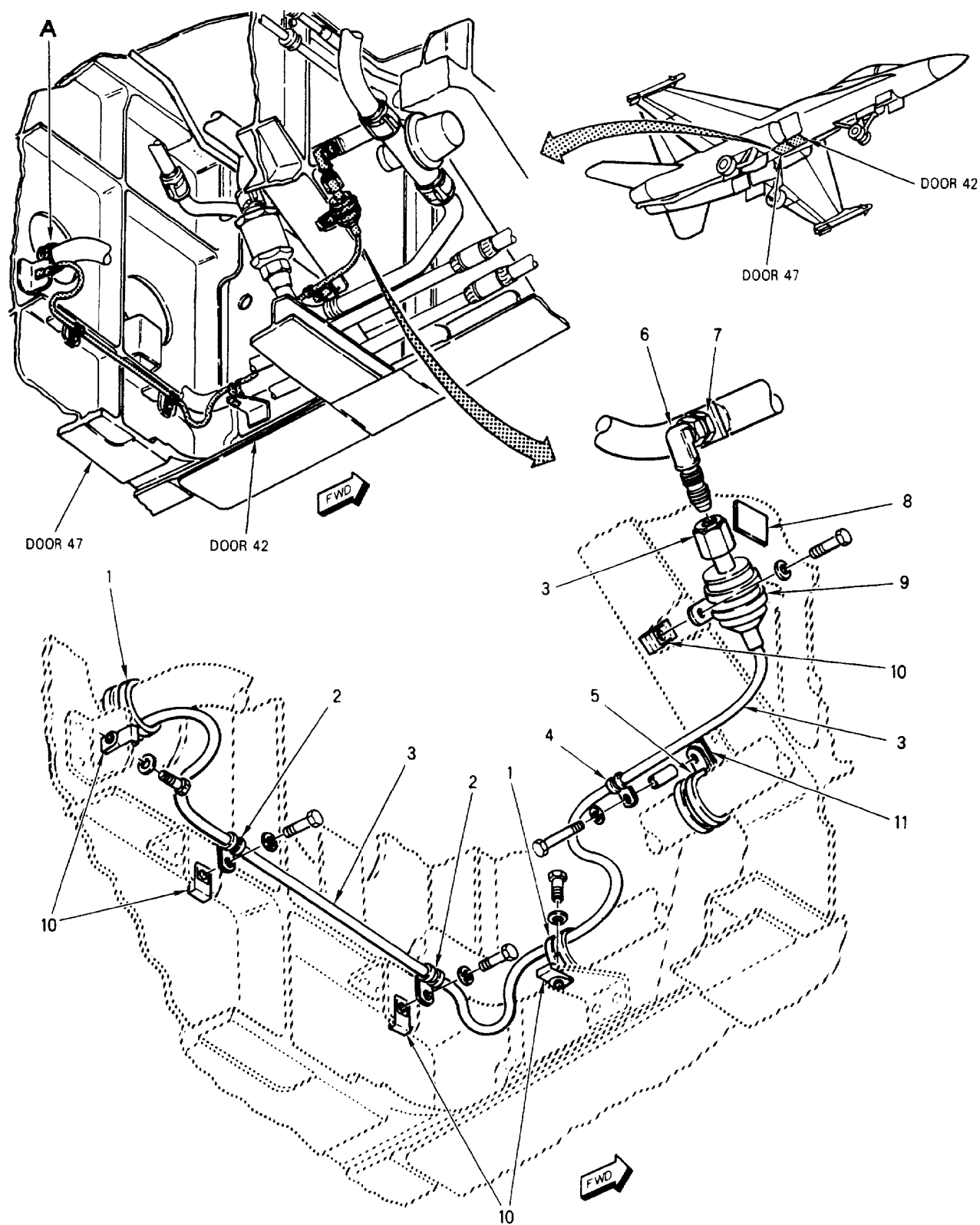


Figure 1. External Tanks Air Pressure Transducer (5MTR130) (Sheet 1)

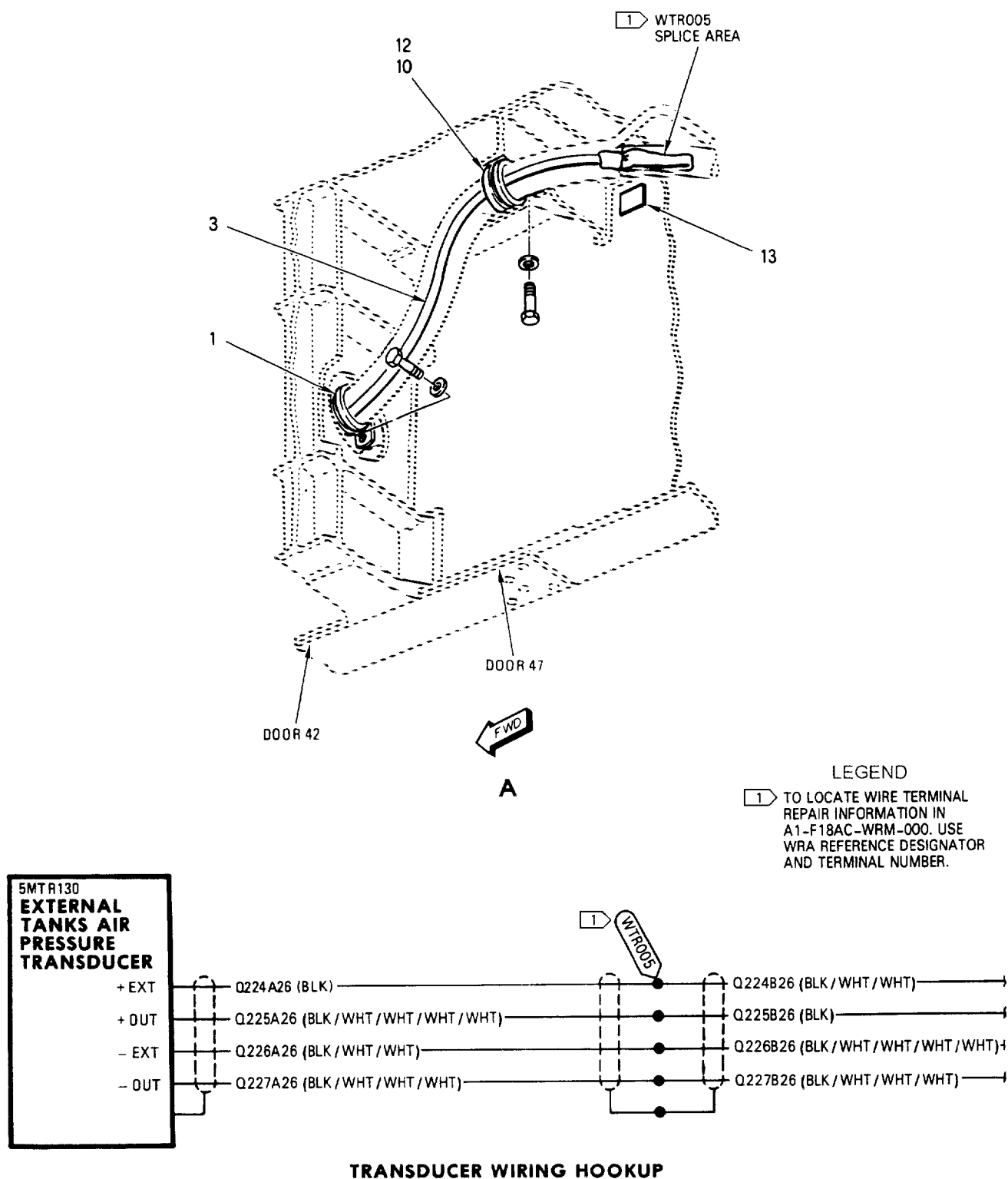


Figure 1. External Tanks Air Pressure Transducer (5MTR130) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL TANKS AIR PRESSURE									
		TRANSDUCER (5MTR130)									
1	JM44LC33WD12	.	CLAMP (22175) (MCDONNELL						2	*	PAOZZ
			SPEC ST9M630D12)								
	830WD12G	.	SEE ABOVE (83930)						2	*	PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
2	MS21919WDG4	.	CLAMP						2		PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
3	BM-18-1000-50	.	TRANSDUCER, PRESSURE						1		PAOZZ
			(EXTERNAL TANKS AIR								
			PRESSURE TRANSDUCER)								
			(34345) (MCDONNELL SPEC								
			74B580183-139) (5MTR130)								
			(REPLACES BM-14-1000-50 AND								
			BM-5-1000-50) (FOR ASSEMBLY								
			SEE 74A770200)								
	BM-14-1000-50	.	SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
			74B580183-127)								
	BM-5-1000-50	.	SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
			74A580183-115)								
4	MS21919WDG4	.	CLAMP						1		PAOZZ
	NAS673V20	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
	NAS43DD3-64	.	SPACER (AP)						1		PAOZZ
5	JM44LC33WD16	.	CLAMP (22175) (MCDONNELL						1	*	PAOZZ
			SPEC ST9M63DD16)								
	830WD16G	.	SEE ABOVE (83930)						1	*	PAOZZ
6	ST7M263DA4	.	ELBOW (76301)						1		PAOZZ
7	7M637BD-4D	.	NIPPLE (76301)						1		PAOZZ
	MS29512-04	.	PACKING (USE WITH INDEX 7)						1		PAOZZ
8	74A586555-2053	.	PLATE, IDENTIFICATION - FUEL						1		MDOZZ
			SYSTEM 1 (76301)								
9	JM44LC33WD16	.	CLAMP (22175) (MCDONNELL						1	*	PAOZZ
			SPEC ST9M630D16)								
	830WD16G	.	SEE ABOVE (83930)						1	*	PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
	AN6289D4	.	NUT (AP)						1		PAOZZ
10	A11144-7-3	.	NUT, CLIP (72962) (MCDONNELL						5	*	PAOZZ
			SPEC ST3M523C3M)								
	130091	.	SEE ABOVE (76530)						5	*	PAOZZ
11	A11144-4-3	.	NUT, CLIP (72962) (MCDONNELL						1		PAOZZ
			SPEC ST3M523C3M-1)								
12	JM44LC33WD16	.	CLAMP (22175) (MCDONNELL						1	*	PAOZZ
			SPEC ST9M630D16)								
	830WD16G	.	SEE ABOVE (83930)						1	*	PAOZZ
	NAS673V2	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
13	74A885621-2167	.	MARKER, IDENTIFICATION (76301)						1		MDOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. External Tanks Air Pressure Transducer (5MTR130) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**REFUEL SCAVENGE LINE PRESSURE TRANSDUCER
(5MTF140)**

REFUEL/DEFUEL SYSTEM

Title	WP Number
Refuel Scavenge Line Pressure Transducer, 161353 THRU 161528	WP073 01
Refuel Scavenge Line Pressure Transducer, 161702 AND UP	WP073 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

REFUEL SCAVENGE LINE PRESSURE TRANSDUCER
(5MTF140)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161353 THRU 161528

Reference Material

Electrical System	A1-F18AC-420-300
No. 2 Relay Panel Assembly	WP032 00
Fuel System	A1-F18AC-460-200
Refuel Scavenge System Test	WP003 00
Integrated Flight Controls	A1-F18AC-570-300
Rate Gyroscope CN-1511/ASW-44	WP007 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Structure Repair - General Information	A1-F18AC-SRM-200
Wiring Repair with Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Parts List	5
Materials Required	1
Refuel Scavenge Line Pressure Transducer (5MTF140), Figure 1	3
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

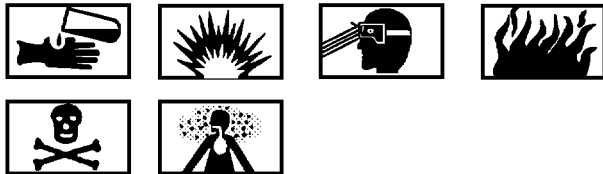
1. REMOVAL.

- a. Defuel aircraft (A1-F18AC-PCM-000).
- b. Make sure electrical power is not applied (A1-F18AC-LMM-000).
- c. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

d. Remove door 35R and open door 14R (A1-F18AC-LMM-010).

e. Remove rate gyroscope (A1-F18AC-570-300, WP007 00).

f. Remove no. 2 relay panel assembly (A1-F18AC-420-300, WP032 00).



Jet Fuel

1

g. Position an approved safety container under transducer (2, figure 1) to catch residual fuel.

h. Disconnect transducer (2) wires at WTF003 splice area.

i. Disconnect clamps (5, 9, 11, and 12, details A and B).

j. Remove fume seal to allow wiring removal.

k. Remove transducer (2) from nipple (3) or elbow (4).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transducer (2, figure 1), and nipple (3) or elbow (4) for electrical bond (A1-F18AC-LMM-000).

c. Install transducer (2) to nipple (3) or elbow (4).

d. Route wire bundle through clamps (5, 9, and 12, details A and B), and connect clamps and tie wire bundle with string.

e. Splice wires at WTF003 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q310B26 (BLK) to Q310A26 (BRN).

(2) Q311B26 (BLK/WHT/WHT/WHT/WHT) to Q311A26 (YEL).

(3) Q312B26 (BLK/WHT/WHT) to Q312A26 (RED).

(4) Q313B26 (BLK/WHT/WHT/WHT) to Q313A26 (ORN).

f. Install no. 2 relay panel assembly (A1-F18AC-420-300, WP032 00).

g. Remove no power tag from external power receptacle.

h. Do refuel scavenge system test (A1-F18AC-460-200, WP003 00).

i. Fume seal as required (A1-F18AC-SRM-200).

j. Install rate gyroscope (A1-F18AC-570-300, WP007 00).

k. Close door 14R and install door 35R (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

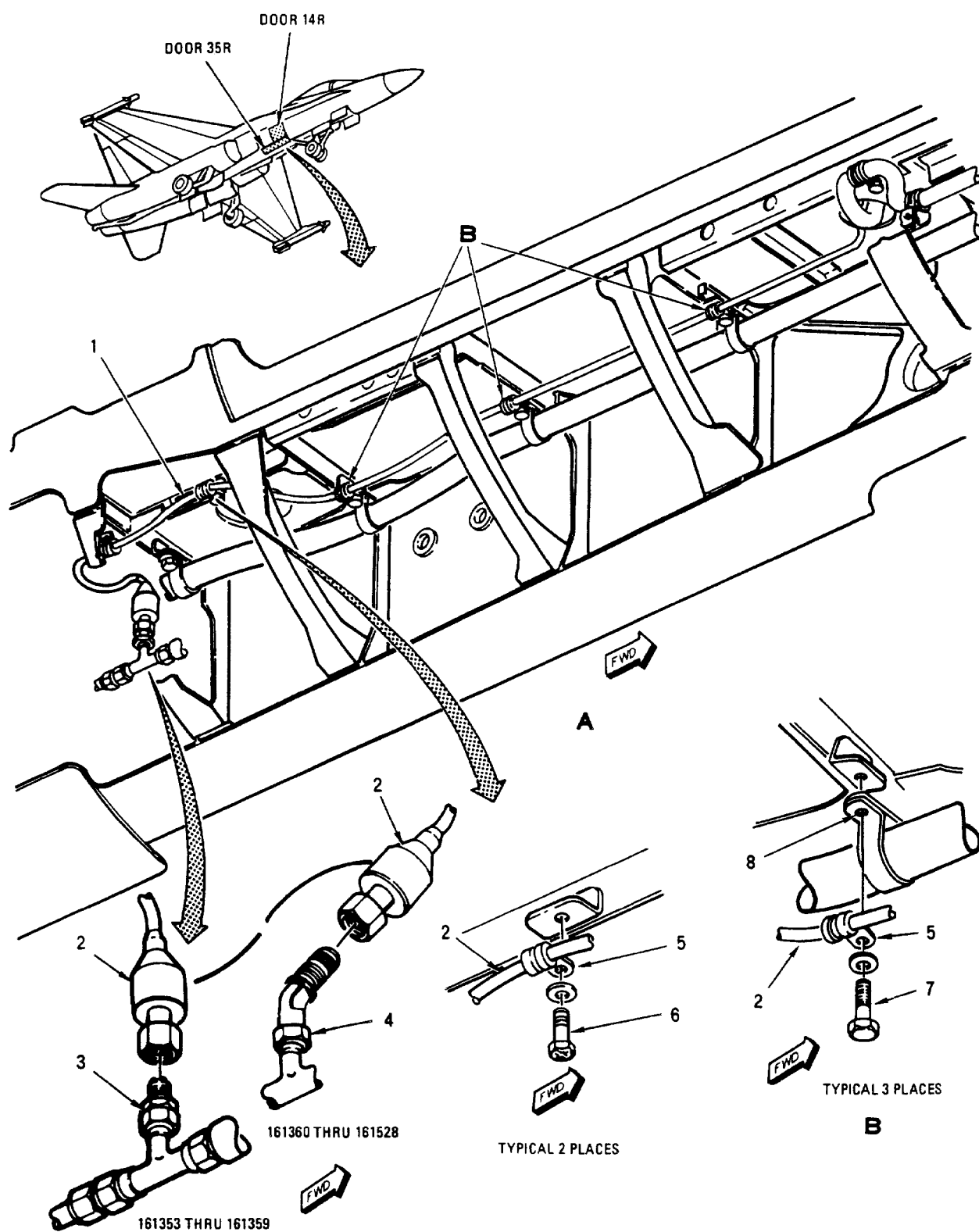


Figure 1. Refuel Scavenge Line Pressure Transducer (5MTF140) (Sheet 1)

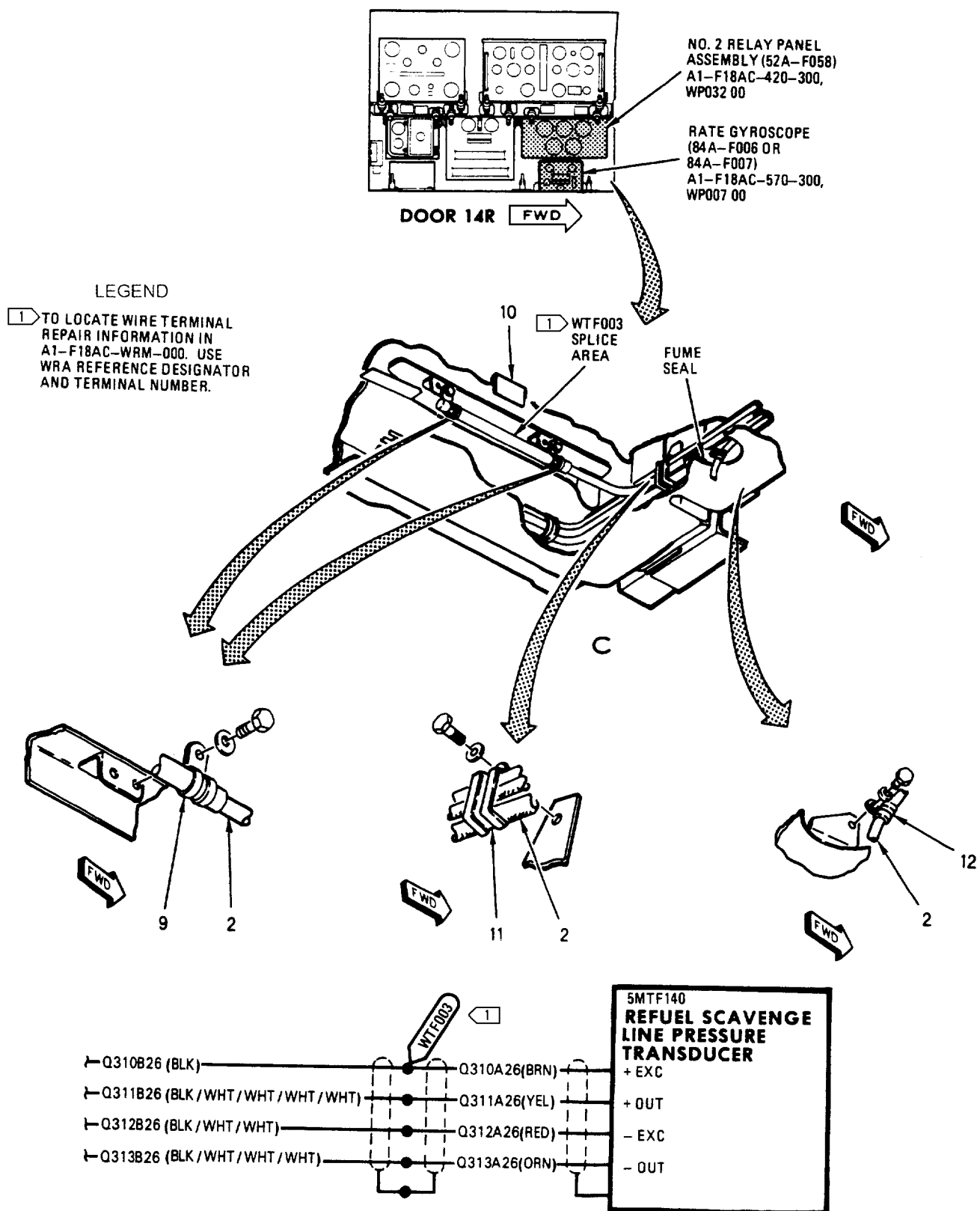


Figure 1. Refuel Scavenge Line Pressure Transducer (5MTF140) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		REFUEL SCAVENGE LINE PRESSURE									
		TRANSDUCER (5MTF140)									
1	74A890601-2195	.	MARKER, ELECTRICAL						1		MDOZZ
			IDENTIFICATION (76301)								
2	BM-18-1000-5	.	SENSOR, PRESSURE - REFUEL						1		PAOZZ
			SCAVENGE (REFUEL								
			SCAVENGE LINE PRESSURE								
			TRANSDUCER) (MCDONNELL								
			SPEC 74B580123-143) (5MTF140)								
			(REPLACES BM-5-1000-5 AND								
			BM-14-1000-15) (FOR ASSEMBLY								
			SEE 74A770129)								
	BM-14-1000-5	.	SEE ABOVE (MCDONNELL						1		PAOZZ
			SPEC 74B580123-131)								
	8M-5-1000-5	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74B580183-119)								
3	7M637BD-4D	.	NIPPLE, TUBE (76301)						1	A	PAOZZ
	MS29512-04	.	PACKING (USE WITH INDEX 3)						1		PAOZZ
4	7M637BY-4D	.	ELBOW, TUBE (76301)						1	B	PAOZZ
5	JM44LC44WD #	.	CLAMP, LOOP (22175) (MCDONNELL						AR	*	-
			SPEC ST9M630D)								
	830WD #	.	SEE ABOVE (83930)						AR	*	-
	MS21919WDG #	.	CLAMP						AR	*	-
6	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
7	NAS673V4	.	BOLT						3		PAOZZ
	AN960JD10L	.	WASHER (AP)						3		PAOZZ
8	AN742D16	.	CLAMP						3		PAOZZ
9	MS21919WDG #	.	CLAMP						2		-
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
10	74A890601-2013	.	MARKER, ELECTRICAL						1		MDOZZ
			IDENTIFICATION (76301)								
11	MS21919WDG #	.	CLAMP						1		-
	NAS673V5	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
12	MS21919WDG #	.	CLAMP						1		PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161353 THRU 161359	F/A-18A/B
B	161360 THRU 161528	F/A-18A/B

Figure 1. Refuel Scavenge Line Pressure Transducer (5MTF140) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

REFUEL SCAVENGE LINE PRESSURE TRANSDUCER
(5MTF140)

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161702 AND UP

This WP supersedes WP073 02, dated 1 October 1987.

Reference Material

Fuel System	A1-F18AC-460-200
Refuel Scavenge System Test	WP003 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Wiring Repair Manual	A1-F18AC-WRM-000

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Illustration	3
Parts List	4
Installation	2
Materials Required	1
Refuel Scavenge Line Pressure Transducer (5MTF140), Figure 1	3
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

Materials Required

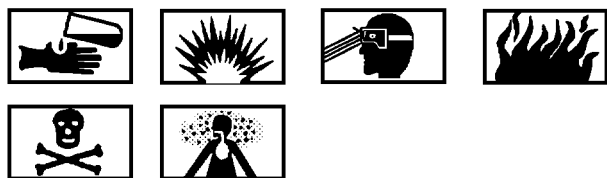
None

c. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

1. REMOVAL.

a. Defuel aircraft (A1-F18AC-PCM-000).

d. Remove door 33 (A1-F18AC-LMM-010).



Jet Fuel

1

e. Position an approved safety container under transducer (1, figure 1) to catch residual fuel.

f. Disconnect transducer (1) wires at WTF010 splice area.

g. Remove clamp (3).

h. Remove transducer (1) from nipple (2).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Install transducer (1, figure 1) to nipple (2).

c. Install clamp (3).

d. Splice wires at WTF010 splice area (A1-F18AC-WRM-000) per substeps below:

(1) Q310B26 (BLK) to Q310A26 (BRN).

(2) Q311B26 (BLK/WHT/WHT/WHT/WHT) to Q311A26 (YEL).

(3) Q312B26 (BLK/WHT/WHT) to Q312A26 (RED).

(4) Q313B26 (BLK/WHT/WHT/WHT) to Q313A26 (ORN).

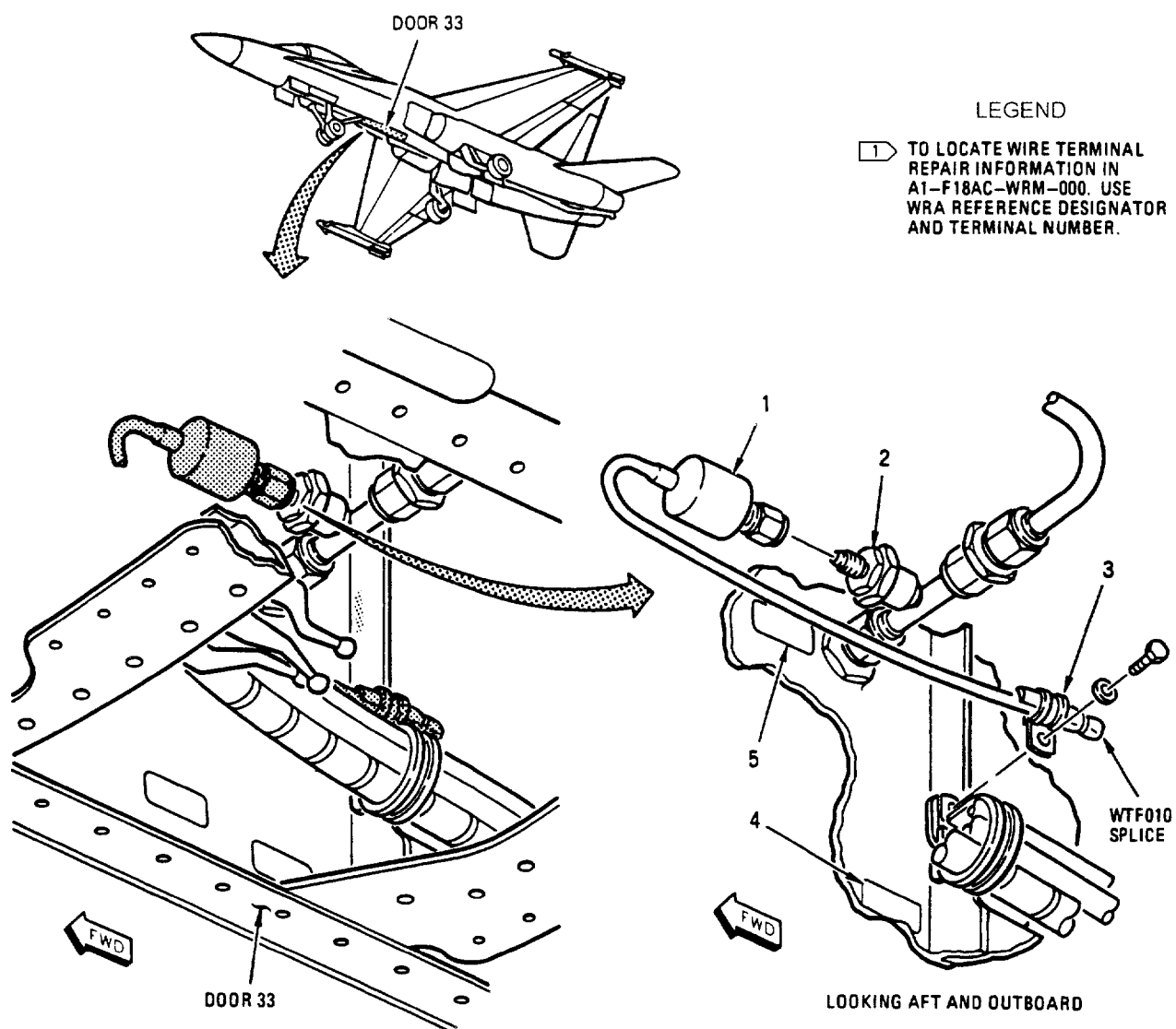
e. Remove no power tag from external power receptacle.

f. Do refuel scavenge system test (A1-F18AC-460-200, WP003 00).

g. Install door 33 (A1-F18AC-LMM-010).

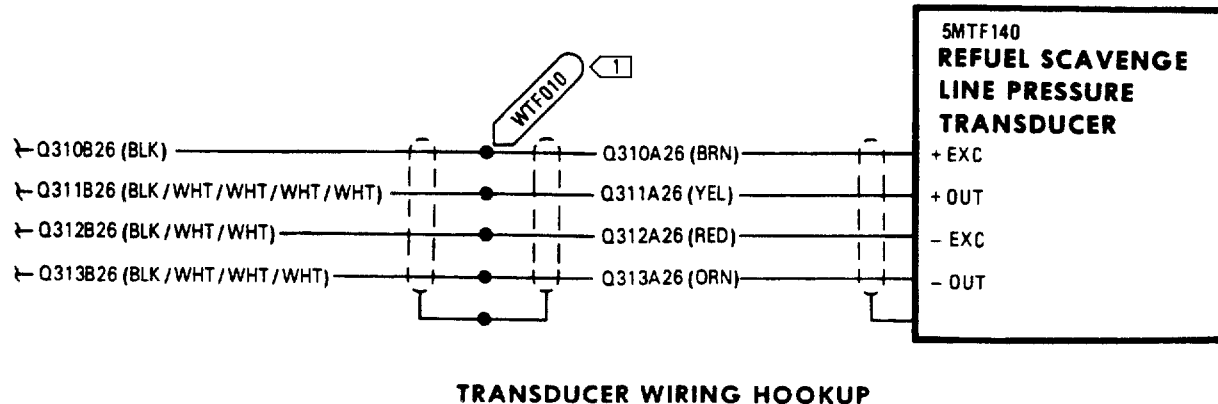
3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



LEGEND

1 TO LOCATE WIRE TERMINAL REPAIR INFORMATION IN A1-F18AC-WRM-000, USE WRA REFERENCE DESIGNATOR AND TERMINAL NUMBER.



TRANSDUCER WIRING HOOKUP

Figure 1. Refuel Scavenge Line Pressure Transducer (5MTF140) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		REFUEL SCAVENGE LINE PRESSURE									
		TRANSDUCER (5MTF140)									
1	BM-18-1000-5	.							1		PAOZZ
		SENSOR, PRESSURE - REFUEL									
		SCAVENGE (REFUEL									
		SCAVENGE LINE PRESSURE									
		TRANSDUCER) (34345)									
		(MCDONNELL SPEC									
		74B580183-143) (5MTF140)									
		(REPLACES BM-5-1000-5 AND									
		BM-14-1000-5) (FOR									
		ASSEMBLY SEE 74A770129)									
	BM-14-1000-5	.							1	*	PAOZZ
		SEE ABOVE (MCDONNELL									
		SPEC 74B580183-131)									
	BM-5-1000-5	.							1	*	PAOZZ
		SEE ABOVE (MCDONNELL									
		SPEC 74B580183-119)									
2	7M637BD-4D	.							1		PAOZZ
	MS28778-4	.							1		PAOZZ
3	MS21919WDG #	.							1		-
	NAS673V #	.							1		-
	AN960JD10L	.							1		PAOZZ
4	74A890601-2163	.							1		MGOZZ
		MARKER, ELECTRICAL									
		IDENTIFICATION (76301)									
5	74A890601-2195	.							1		MDOZZ
		MARKER, ELECTRICAL									
		IDENTIFICATION (76301)									

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Refuel Scavenge Line Pressure Transducer (5MTF140) (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE NOZZLE
(5VAB526)
INFLIGHT REFUELING SYSTEM

Reference Material

Fuel System A1-F18AC-460-200
 Inflight Refueling System WP004 00
 Line Maintenance Procedures A1-F18AC-LMM-000
 Plane Captain Manual A1-F18AC-PCM-000

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Inflight Refueling Probe Nozzle (5VAB526), Figure 1	3
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F/A-18- 00054C1)	15 Oct 86	

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic- Power Source	-
Wrench, Flight Refueling Nozzle	X55C9332

Materials Required

Nomenclature	Specification or Part Number
Packing	M25988/1-234
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).
- b. On cockpit FUEL system control panel, set PROBE control switch to EXTEND (figure 1).
- c. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).
- d. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.
- e. Install probe ground safety lock (A1-F18AC-PCM-000).
- f. Bend tab UP on ring (2).
- g. Back probe nozzle (4) and ring (2) out of probe assembly (1) with flight refueling nozzle wrench.
- h. Remove packing (3).

2. INSTALLATION.

- a. Make sure electrical power is not applied (A1-F18AC-LMM-000).



Petrolatum, Technical

- b. Lubricate new packing (3, figure 1) with petrolatum and install on probe nozzle (4).

- c. Inspect and replace lock ring (2) if tab is cracked or broken.

NOTE

Nozzle and ring may be backed away from probe assembly a maximum of 12 degrees to obtain best possible tab groove alignment. (Distance between holes on ring equals 12 degrees).

- d. Align one of five holes of ring (2) with nozzle (4) indexing pin so that when ring and nozzle are bottomed against probe assembly (1) ring tab aligns with one of six locking grooves.

- e. Bend ring (2) tab in locking groove.

- f. Remove no power tag from external power receptacle.

- g. Do probe leak test (A1-F18AC-460-200, WP004 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

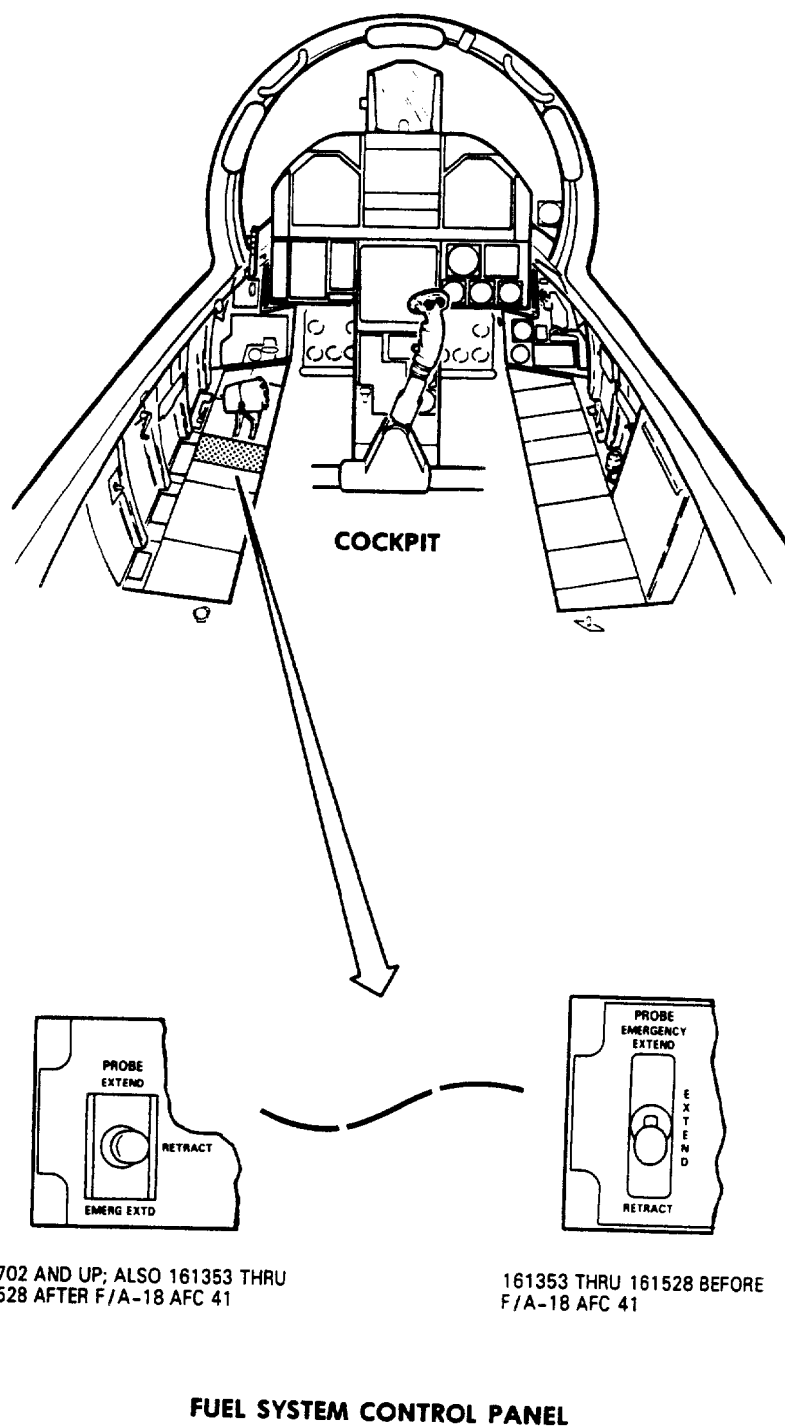


Figure 1. Inflight Refueling Probe Nozzle (5VAB526) (Sheet 1)

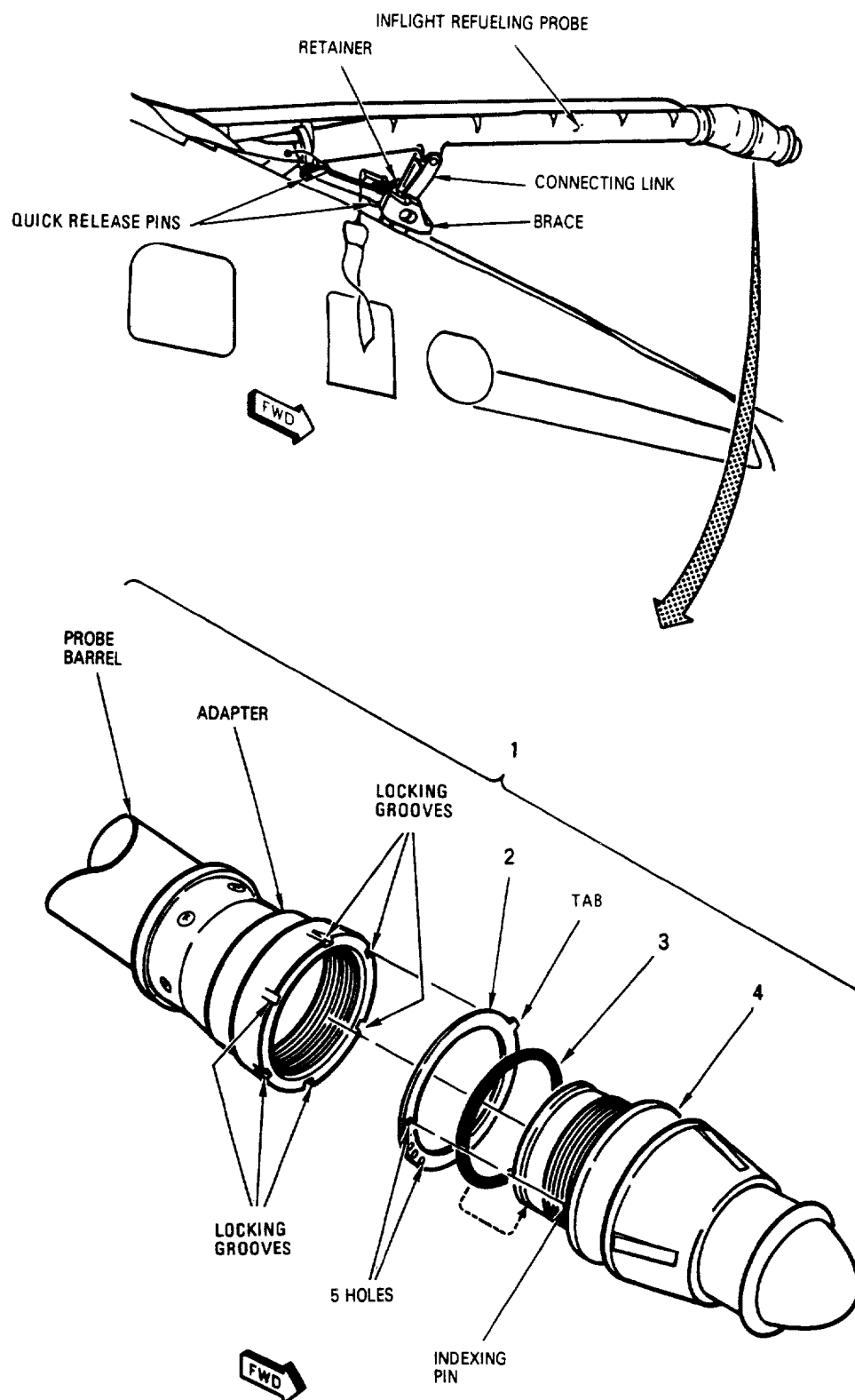


Figure 1. Inflight Refueling Probe Nozzle (5VAB526) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE NOZZLE									
		(5VAB526)									
1	74A661244-2003 +	.	PROBE ASSEMBLY - IN-FLIGHT						1		PBOGD
			REFUELING (INFLIGHT REFUELING								
			PROBE ASSEMBLY) (76301) (5MPB547)								
2	MS24360-2	.	RING (96906)						1		PAOZZ
3	M25988/1-234	.	PACKING						1		PAOZZ
4	MS24356-2B	.	NOZZLE, FLIGHT REFUEL (INFLIGHT						1		PAODD
			REFUELING PROBE NOZZLE								
			(96906) (5VAB526)								
		+ REPLACEMENT PROBE ASSEMBLY									
		COMES FULLY ASSEMBLED READY									
		FOR INSTALLATION. (REFERENCE									
		WP076 00).									

Figure 1. Inflight Refueling Probe Nozzle (5VAB526) (Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****INFLIGHT REFUELING PROBE ASSEMBLY
(5MPB547)****INFLIGHT REFUELING SYSTEM**

This Work Package supersedes WP 076 00, dated 1 September 1999

Reference Material

Fuel System	A1-F18AC-460-300
Inflight Refueling Probe Fairing	WP085 00
Inflight Refueling Probe Rigging	WP088 00
Fuel System	A1-F18AC-460-200
Inflight Refueling System	WP004 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000

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Installation	3
Removal	2
Repair	4
Ball Joint	4
Forward Adapter	4

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F/A- 18-00054C1)	15 Oct 86	-

Support Equipment Required**WARNING**

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-
Inflight Refueling Probe Swivel Protective Cap	74D460001-1001
Torque Wrench, 0 to 75 Inch-Pounds	-
Torque Wrench, 0 to 120 Inch-Pounds	-

To prevent death or injury, EMER IFR circuit breaker must be open.

f. On no. 8 circuit breaker panel assembly (figure 1), open EMER IFR circuit breaker.

g. On 161353 THRU 161528, do substeps below.

(1) Disconnect clamps (17, figure 1, configuration X) from probe barrel (2).

(2) Remove bolt (7) and washers (3 and 6).

(3) Remove cotter pin (9), screw (13), nut (10), washer (11), bushing (15), clamp (19) (with wire bundle), and bearing (14).

h. On 161702 AND UP, do substeps below:

(1) Remove bolt (7, figure 1) and washers (3 and 6).

(2) Remove cotter pin (9), screw (13), nut (10), washer (11), bushing (15) and bearing (14).

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin (3)	MS24665-151
Cotter Pin	MS24665-229
Packing	M25988/1-232
Packing	M25988/1-347
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Tape, Pressure Sensitive, Black	8544-2-000 (CAGE 04963)

CAUTION**1. REMOVAL.**

a. Make sure external hydraulic and electrical power are not applied (A1-F18AC-LMM-000).

b. Remove doors 104 and 105 (A1-F18AC-LMM-010).

c. Remove inflight refueling probe fairing (WP085 00).

d. Tag aircraft external power receptacle with applicable warning to indicate external power is not to be applied to the aircraft.

e. Open door 10L (A1-F18AC-LMM-010).

Prying on any part of coupling clamp (21) may induce scratches or deformations on the band or T-bolt. This can cause premature failure of the clamp, resulting in fuel leakage during air refueling operations. Do not use tools to apply leverage to any part of the clamp.

i. Remove coupling (23) and probe assembly (21).

j. Remove packing (20).

k. Install swivel protective cap (detail B) on refueling probe swivel joint.

l. Remove bolt (4, detail A), washers (3 and 6), nut (8), and lead (5).

2. INSPECTION.

a. Inspect coupling clamp (21) for the following conditions:

- (1) T-bolt for deformed surface, fracture, crack or bent.
- (2) T-bolt threads for damage or deformation.
- (3) Any portion of the T-bolt retainer band extending beyond the edge of the T-bolt barrel rim by more than 0.05 inch.
- (4) Cracks or scoring in the clamp assembly, including the T-bolt retainer band.

b. Replace the clamp if any of the above conditions exist.

3. INSTALLATION.

NOTE

Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surface of probe barrel (2, figure 1) and lead (5, detail A) for electrical bonding (A1-F18AC-LMM-000).

c. Install lead (5), bolt (4), washers (3 and 6) and nut (8) to probe barrel (2).

d. Remove swivel protective cap (detail B).



Petrolatum, Technical

2

e. Lubricate packing (20, detail B) with petrolatum.

f. Install packing (20) in IFR probe swivel joint.

g. If installing new probe assembly (1) that includes fairing, make sure fairing is not attached to probe assembly (21) during installation (WP085 00).

h. Assemble washers (32 and 33), retainers (31 and 34) and coupling (23 details B and C) onto ball-joint.



Prying on any part of coupling clamp (21) may induce scratches or deformations on the band or T-bolt. This can cause premature failure of the clamp, resulting in fuel leakage during air refueling operations. Do not use tools to apply leverage to any part of the clamp.

i. Attach probe barrel (2) to refueling probe swivel joint with coupling (23, detail B). Torque coupling 45 to 60 inch-pounds. (QA)

j. On 161353 THRU 161528, do substeps below:

(1) Install bearing (14), bushing (15), screw (13), clamp (19) with wire bundle, washer (11) and nut (10). Torque screw 95 to 110 inch-pounds and safety with cotter pin (9). (QA)

(2) Apply pressure sensitive tape where clamps (17, configuration X) contact probe barrel (2). Attach clamps to probe barrel (2).

k. On 161702 AND UP, install bearing (14), bushing (15), screw (13), washer (11) and nut (10). Torque nut 95 to 110 inch-pounds and safety with cotter pin (9). (QA)

l. Prepare mating surface of lead (5) and structure for electrical bonding (A1-F18AC-LMM-000).

m. Install lead (5), washers (3 and 6), and bolt (7).

n. If installing new probe assembly, rig probe (WP088 00).

o. Install inflight refueling probe fairing (WP085 00).

p. Install doors 104 and 105 (A1-F18AC-LMM-010).

q. In door 10L, on no. 8 circuit breaker panel assembly, close EMER IFR circuit breaker.

r. Close door 10L (A1-F18AC-LMM-010).

- s. Remove no power tag from external power receptacle.
- t. Do probe leak test (A1-F18AC-460-200, WP004 00).
- u. Do probe cycle test (A1-F18AC-460-200, WP004 00).

4. REPAIR.

5. Repair consists of replacement of packings and retaining components.

6. FORWARD ADAPTER.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	M25988/1-233
Petrolatum, Technical	VV-P-236 (CAGE 81348)

- a. Remove probe (1, figure 1) (paragraph 1).
- b. Remove inflight refueling probe nozzle (WP074 00).
- c. Remove nuts (26, figure 1, detail E), washers (27) and bolts (24) and remove adapter (22) from probe barrel (2).
- d. Remove packing (25) from adapter (22).



Petrolatum, Technical

2

- e. Lubricate new packing (25) with petrolatum.
- f. Install packing (25) in groove inside adapter (22).

NOTE

Adapter will fit on probe barrel in only one position because of bolt hole alignment.

- g. Install adapter (22) on probe barrel (22) with bolts (24), washers (27) and nuts (26). (QA)
- h. Install inflight refueling probe nozzle (WP074 00).
- i. Install probe (1, figure 1) (paragraph 2).

7. BALL JOINT.

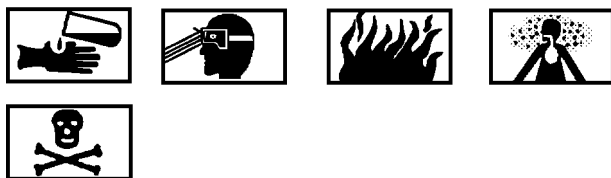
Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Cheesecloth	CCC-C-440, Type 1, Class 1, (CAGE 81348)
Cleaning Compound	PR146Blue (CAGE 83574)
Cotter Pin (3)	MS24668-151
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)
Packing	M25988/1-232
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Scraper, Wood or Phenolic	-
Sealing Compound	MIL-S-81733 (CAGE 81349)

- a. Remove probe (1, figure 1) (paragraph 1).
- b. Remove cotter pins (36, detail C), nuts (35), washers (29) and bolts (28) and remove ball joint.
- c. Remove packing (30) from ball joint.
- d. If required, remove retainer (31), spacers (32), washers (33), and retainer (34).
- e. Remove sealing compound from ball joint and probe barrel with plastic or wooden scraper.
- f. If required, install retainer (34, detail C), spacers (32), washers (33) and retainer (31) on probe barrel (2).



Isopropyl Alcohol

3

g. Clean fay surface of ball joint and probe barrel per substeps below:

(1) Remove all dust and loose sealant.

(2) Wipe area with cheesecloth and isopropyl alcohol, then with dry cheesecloth before isopropyl alcohol evaporates.

(3) Repeat (2) until no visible soil on final wiping cloth.



Petrolatum, Technical

2

h. Lubricate new packing (30) with petrolatum.

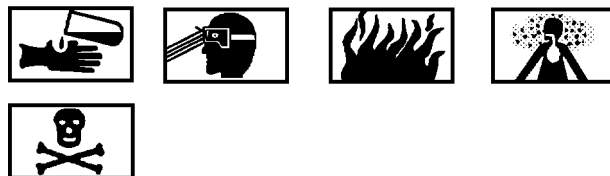
i. Install packing (30) in groove inside ball joint.



Cleaning Compound

9

j. Using cheesecloth soaked with cleaning compound, apply cleaning compound to fay surfaces of ball joint and probe barrel. Do not wipe dry, air dry a minimum of 15 minutes. Do not touch areas to which cleaning compound was applied.



Sealing Compound

6

NOTE

Sealing compound application time is 2 hours after mixing and assembly time is 4 hours after mixing.

k. Brush an even coat of sealing compound on fay surface of probe barrel (2, detail D).

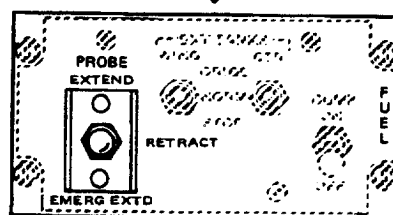
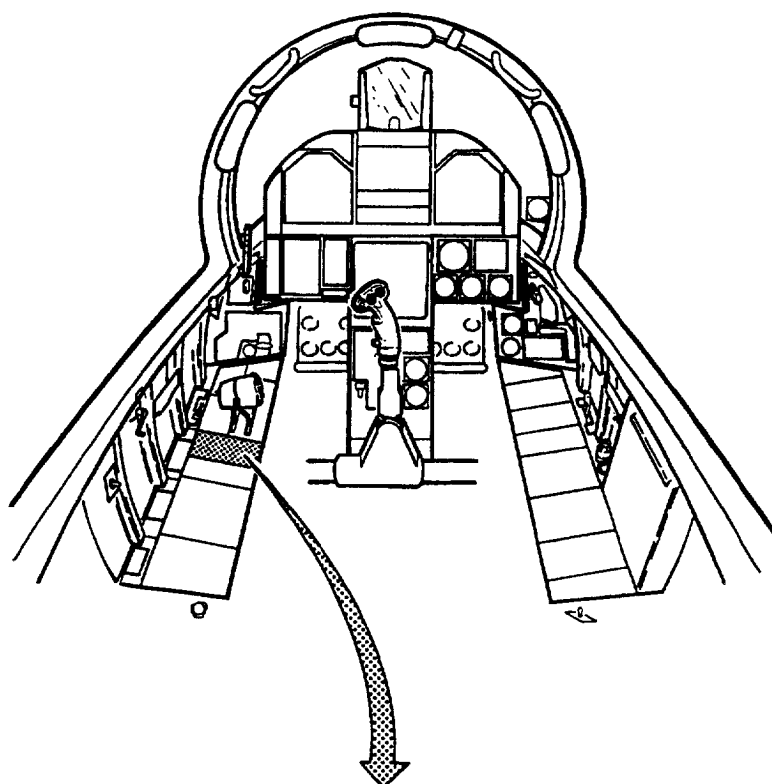
l. Install ball joint on probe barrel (2) with bolts (28), washers (29) and nuts (35). Safety nuts with cotter pins (36). (QA)

m. Remove fay sealant squeeze out with isopropyl alcohol moistened cloth.

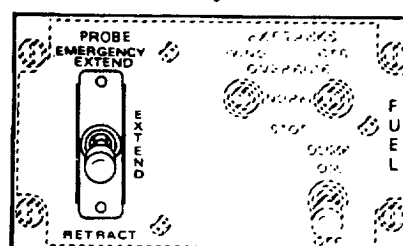
n. Install probe (1) (paragraph 2).

8. ILLUSTRATED PARTS BREAKDOWN.

9. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



161702 AND UP; ALSO 161353 THRU
161528 AFTER F/A-18 AFC 41



161353 THRU 161528 BEFORE
F/A-18 AFC 41

Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 1)

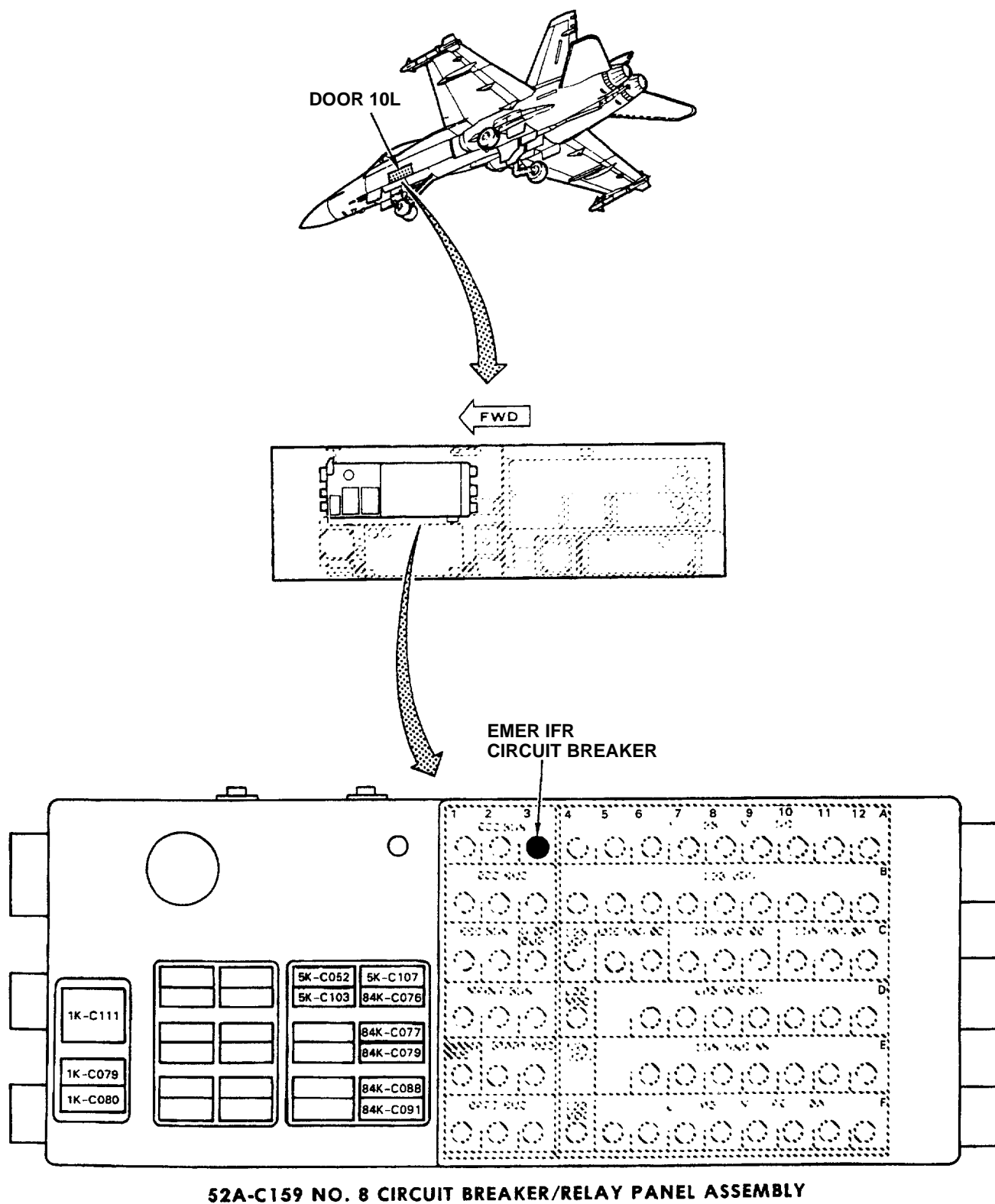


Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 2)

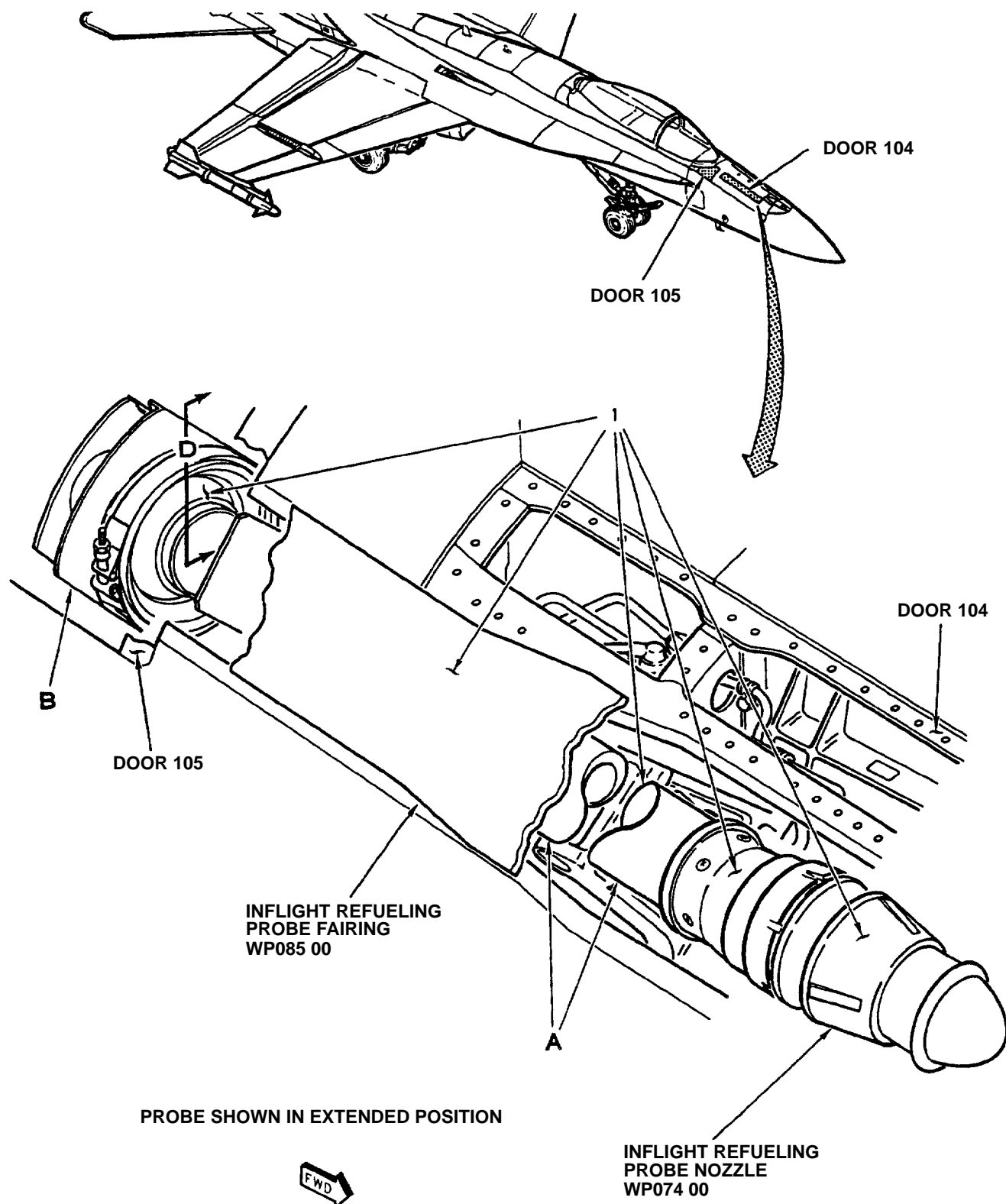
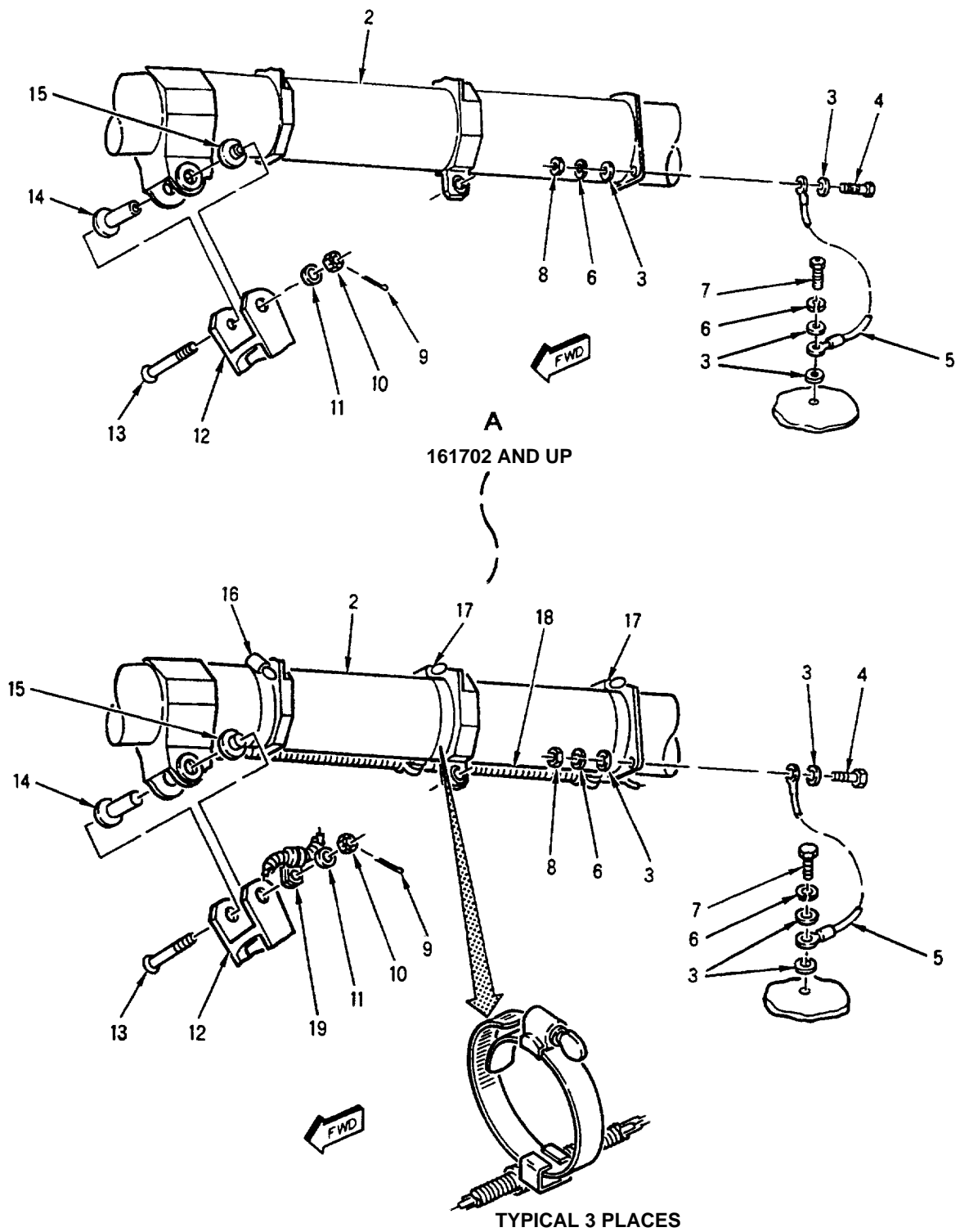


Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 3)



CONFIGURATION X
161353 THRU 161528

Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 4)

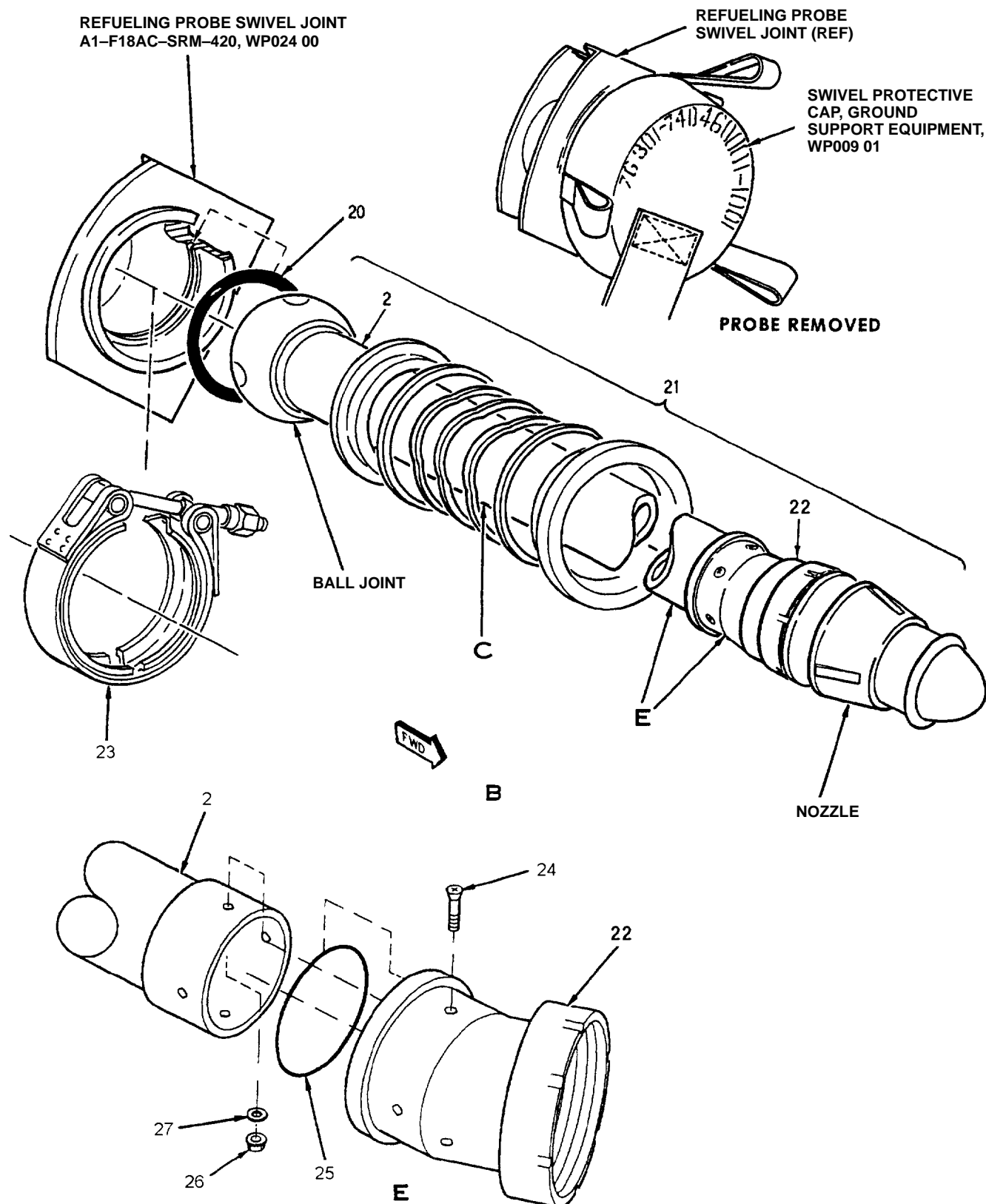


Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 5)

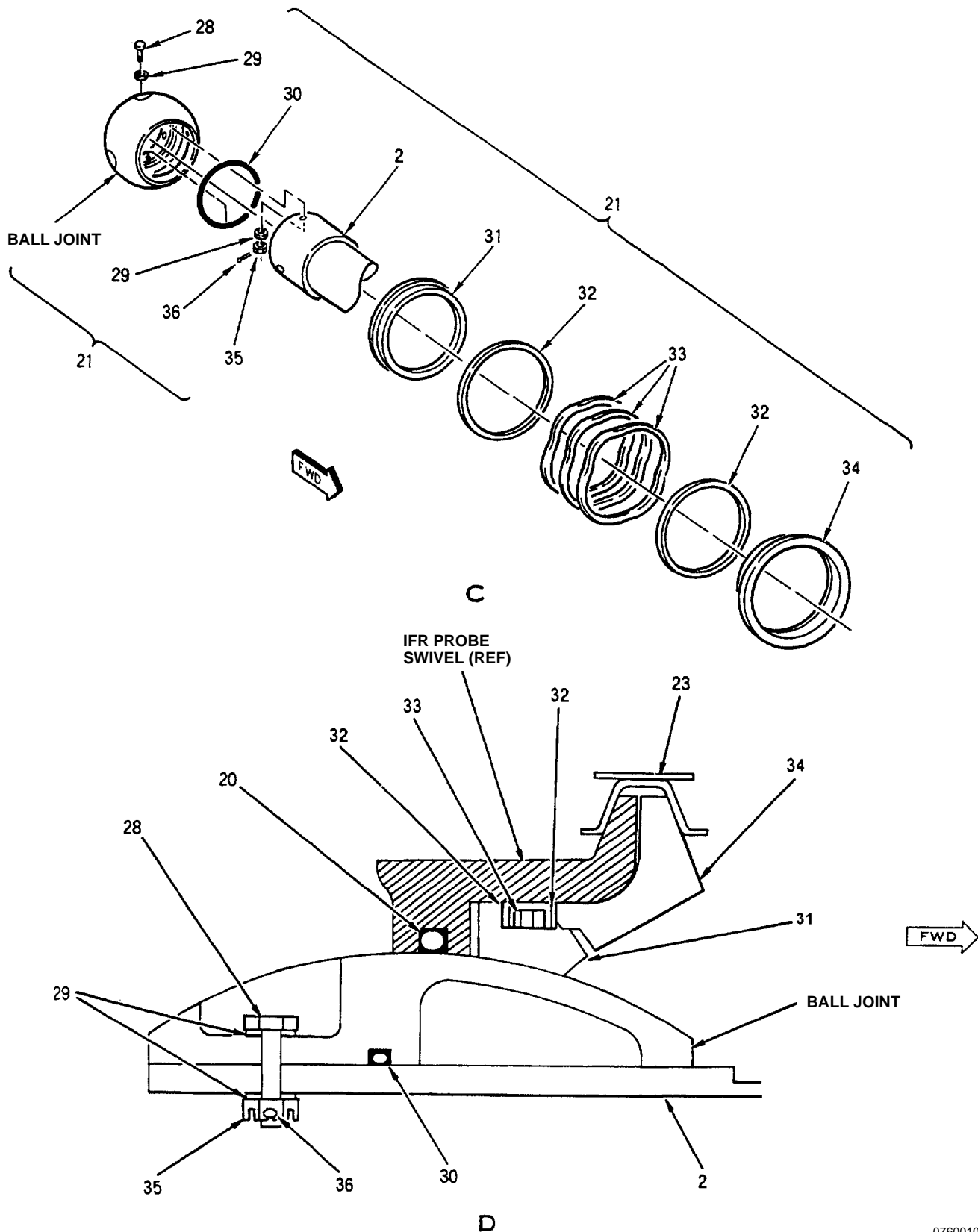


Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE									
		ASSEMBLY (5MPB547)									
1	74A661244-1003	.	PROBE ASSEMBLY - IN-FLIGHT	.....					1		PBOGD
			REFUELING (INFLIGHT REFUELING								
			PROBE ASSEMBLY) (76301)								
2	74A661249-1003 ±	.	PROBE BARREL, IN-FLIGHT REFUELING	.....					1		PBOGD
			(76301) (NHPA 74A661244-2003,								
			SM&R CODE PAOGD)								
3	AN960JD10	.	WASHER						4		PAOZZ
4	NAS673V4	.	BOLT						1		PAOZZ
5	MS25083-5BB6	.	LEAD, ELECTRICAL						1		PAOZZ
6	MS35338-138	.	WASHER						2		PAOZZ
7	NAS673V6	.	BOLT						1		PAOZZ
8	NAS1291C3M	.	NUT						1		PAOZZ
9	MS24665-229	.	PIN, COTTER						1		PAOZZ
10	E10080-7	.	NUT, PLAIN, SLOTTED, HEXAGON (72962)	.....					1	*	PAOZZ
			(MCDONNELL SPEC ST3M404C7)								
	74640C7	.	SEE ABOVE (56878)						1	*	PAOZZ
	ST3M404C7	.	SEE ABOVE (92595)						1	*	PAOZZ
11	AN960C616L	.	WASHER						1		PAOZZ
12	74A661229-1001	.	CONNECTING LINK, RIGID IN-FLIGHT	.....					1		XBOGG
			REFUELING PROBE (76301)								
13	HT4049-6D48	.	SCREW, CLOSE TOLERANCE (73197)	.....					1		PAOZZ
			(MCDONNELL SPEC ST3M714-6D48)								
14	74A661270-2011	.	BEARING, SLEEVE - IN-FLIGHT RFL	.....					1		PAOZZ
			PROBE (76301)								
	74A661270-2001	.	SEE ABOVE						1	*	PAOZZ
15	74A661257-2003	.	BUSHING, SLEEVE - LINK, IN-FLIGHT	.....					1		PAOZZ
			REFUEL PROBE (76301)								
16	AN737TW98	.	CLAMP						1	A	PAOZZ
	MS21042L3	.	NUT (AP)						1		PAOZZ
	AN960JD10	.	WASHER (AP)						1		PAOZZ
	NK1003696-05	.	LUG ASSEMBLY (98625) (MCDONNELL	.....					1		PAOZZ
			SPEC ST9M504-1) (USE WITH INDEX 15)								
	MS21919WDF6	.	CLAMP (USE WITH INDEX 15)						1		PAOZZ
17	AN737TW91	.	CLAMP						2	A	PAOZZ
	MS21042L3	.	NUT (AP)						1		PAOZZ
	AN960JD10	.	WASHER (AP)						1		PAOZZ
	NK1003696-05	.	LUG ASSEMBLY (98625) (MCDONNELL	.....					1		PAOZZ
			SPEC ST9M504-1) (USE WITH INDEX 16)								
	MS21919WDF6	.	CLAMP (USE WITH INDEX 16)						1		PAOZZ
18	M81914/4-1202	.	TUBING						1	A	XBOZZ
19	TA612WD5	.	CLAMP, LOOP (84971) (MCDONNELL	.....					1	A*	PAOZZ
			SPEC 9M636D5)								
	1445WD5N	.	SEE ABOVE (83930)						1	A*	PAOZZ
20	M25988/1-347	.	PACKING						1		PAOZZ
21	74A661244-2003 +	.	PROBE ASSEMBLY - IN-FLIGHT	.....					1		PAOGD
			REFUELING (INFLIGHT REFUELING								
			PROBE ASSEMBLY) (76301) (NHPA								
			74A661244-1003, SM&R CODE PBOGD)								
22	74A661263-2009 ±	.	ADAPTER, IN-FLIGHT REFUELING	.....					1		PBOZZ
			PROBE NOZZLE (76301) (NHPA								
			74A661244-2003, SM&R CODE PAOGD)								
23	NH1003911-10	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(98625) (MCDONNELL SPEC ST7M464-1)								

Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 7)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
24	HT4049-4-6 ±	.						SCREW, CLOSE TOLERANCE (73197) (MCDONNELL SPEC ST3M714-4-6)	6		PAOZZ
25	M25988/1-233 ±	.						PACKING	1		PAOZZ
26	NAS1291C4M ±	.						NUT, SELF-LOCKING	6		PAOZZ
27	AN960JD416L ±	.						WASHER, FLAT	6		PAOZZ
28	NAS654V4D ±	.						BOLT	3		PAOZZ
29	AN960JD416L ±	.						WASHER (UNDER BOLT AND UNDER NUT)	6		PAOZZ
30	M25988/1-232	.						PACKING	1		PAOZZ
31	74A661251-2001 ±	.						RETAINER - SLIDING, IN-FLT REFUEL, PROBE (76301) (NHPA 74A661244-2003, SM&R CODE PAOGD)	1		PAOZZ
32	4M36-43002 ±	.						SPACER (76301)	2		PAOZZ
33	74A661252-2001 ±	.						WASHER, SPRING TENSION - SWIVEL RETAINER, FUEL PROBE (76301) (NHPA 74A661244-2003, SM&R CODE PAOGD)	3		PAOZZ
34	74A661225-2003 ±	.						RETAINER - FIXED, INFLIGHT REFUEL PROBE (76301) (NHPA 74A661244-2003, SM&R CODE PAOGD)	1		PAOZZ
35	E10080-4 ±	.						NUT, PLAIN, SLOTTED, HEXAGON (72962) (MCDONNELL SPEC ST3M404C4)	3	*	PAOZZ
	74640C4	.						SEE ABOVE (56878)	3	*	PAOZZ
	ST3M404C4	.						SEE ABOVE (92595)	3	*	PAOZZ
36	MS24665-151 ±	.						PIN, COTTER	3		PAOZZ

+ PROBE ASSEMBLY COMES
FULLY ASSEMBLED READY
FOR INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

± INDICATES COMPONENT OF
INFLIGHT REFUELING PROBE
ASSEMBLY.

CODE	USABLE ON	MODEL
A	161353 THRU 161528	F/A-18A/B

Figure 1. Inflight Refueling Probe Assembly (5MPB547) (Sheet 8)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE AND DOOR-DRIVE MECHANISM
INFLIGHT REFUELING SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Inflight Refueling Probe Rigging	WP088 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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




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
Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
Spring Retention Tool, 0.125 Inch Steel	-
Torque Wrench, 0 to 25 Inch-Pounds	-
Torque Wrench, 0 to 50 Inch-Pounds	-
Torque Wrench, 0 to 150 Inch-Pounds	-
Torque Wrench, 0 to 600 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin 	MS24665-151
Cotter Pin 	MS24665-153
Cotter Pin 	MS24665-229
Cotter Pin 	MS24665-231
Cotter Pin 	MS24665-88
Grease, Aircraft	MIL-G-81322 (CAGE 81349)
Wire Safety, Nonelectrical	MS20995NC32 (CAGE 96906)

 Determine quantity required from the illustrated parts breakdown based on the component being removed.

1. GENERAL

a. Apply hydraulic and electrical power (A1-F18AC-LMM-000).

b. On FUEL system control panel, set PROBE control switch to EXTEND (figure 1).

c. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, probe ground safety lock must be installed when working in probe area. If part cannot be removed with ground safety lock installed, IFR PROBE circuit breaker must be open.

d. Do applicable substep below:

(1) Install probe ground safety lock (A1-F18AC-PCM-000).

(2) Open door 10L (A1-F18AC-LMM-010). On no. 8 circuit breaker panel assembly, open IFR PROBE circuit breaker.

e. For removal and installation of parts not listed below, refer to figure 1.

2. REMOVAL.**3. CONNECTING LINKS.**

a. If removing connecting link (9, figure 1), do substeps below:

(1) At bellcrank (2, detail B), remove cotter pin (29), nut (39), washer (37), bushings (38), bolt (36), and connecting link (9).

(2) At bellcrank (8, detail C) remove cotter pin (46), nut (39), washer (37), bushing (38), screw (42), and connecting link (9).

(3) Record length of connecting link (9) to allow installation without rigging probe.

b. If removing connecting link (3, figure 1), do substeps below:

CAUTION

To prevent damage to aircraft, area surrounding probe area must be clear of obstructions.

(1) If installed, remove aircraft ground safety lock (A1-F18AC-PCM-000).

(2) Make sure probe area is clear of obstructions.

(3) In door 10L, on no. 8 circuit breaker panel assembly, close IFR PROBE circuit breaker.

(4) Apply external electrical power (A1-F18AC-LMM-000).

(5) On cockpit FUEL system control panel, set PROBE control switch to RETRACT (figure 1).

(6) Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to retract. Immediately reduce hydraulic flow to allow slow retraction of probe. Retract probe until probe door is fully open.

(7) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

(8) In door 10L, no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

(9) At bellcrank (8, detail C), remove cotter pin (29), nut (39), washers (37), bushing (38), and bolt (43).

(10) At lever (4, detail F), remove cotter pin (29), nut (68), washer (62), bushing (76), and screw (75).

(11) Remove bolt (79), washer (33), bushing (77), bearing sleeve (74), and remove connecting link (3) and lever (4) together.

(12) Remove cotter pin (29), nut (81), washers (37), bushing (80), and screw (78).

(13) Record length of connecting link (3) to allow installation without rigging.

c. If removing connecting link (5, figure 1), do substeps below:



To prevent damage to aircraft, area surrounding probe area must be clear of obstructions.

(1) If installed, remove aircraft ground safety lock (A1-F18AC-PCM-000).

(2) Make sure probe area is clear of obstructions.

(3) In door 10L, on no. 8 circuit breaker panel assembly, close IFR PROBE circuit breaker.

(4) Apply external electrical power (A1-F18AC-LMM-000).

(5) On cockpit FUEL system control panel, set PROBE control switch to RETRACT (figure 1).

(6) Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to retract. Immediately reduce hydraulic flow to allow slow retraction of probe. Retract probe until probe door is fully open.

(7) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

(8) In door 10L, no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

(9) Remove cotter pins (29, detail F), nuts (64 and 68), washers (62 and 72), bushings (73 and 76), bolt (71), screw (75), and connecting link (5).

d. If removing connecting link (7, figure 1), do substeps below:

(1) At bellcrank (8, detail C), remove cotter pin (29), nut (28), washer (27), bushing (45), and screw (44).

(2) At bellcrank (6, detail E), remove cotter pin (29), nut (28), washer (27), bushings (57), bolt (56) and connecting link (7).

(3) Record length of connecting link (7) to allow installation without rigging.

4. BELLCRANKS.

a. If removing bellcrank (2, figure 1), do substeps below:

(1) On 161702 AND UP, do substeps below:

(a) Remove screws (10 and 21, detail A), spacers (12 and 20), washers (14), nuts (15), and clamps (13).

(b) Remove cotter pin (18), nut (19), washers (17), bolt (22), and clamp (16).

(c) Remove screws (11) and position floodlight in a safe area.

(2) Remove cotter pins (29 and 35, detail B), nuts (34 and 39), washers (33 and 37), bushings (32, 38 and 41), bolt (36), and screw (40).

(3) At connecting link (9, detail B), remove cotter pin (29), nut (39), washers (37), bushing (38), and bolt (36).

(4) Open cover (47, for probe bellcrank assembly, detail D).

(5) Screw threaded end of IFR PROBE mechanism pin puller into head of pin (48) and remove pin and bellcrank (2).

b. If removing bellcrank (8, figure 1), do substeps below:

(1) Make sure refueling probe aircraft ground safety lock is installed (A1-F18AC-PCM-000).

(2) At connecting links (7 and 9, detail C), remove cotter pins (29 and 46), nuts (28 and 39), washers (27 and 37), bushings (38 and 45), and screws (42 and 44).

WARNING

To prevent injury to personnel or damage to aircraft, inflight refueling probe must be supported when removing aircraft ground safety lock.

(3) Remove aircraft ground safety lock (A1-F18AC-PCM-000).

(4) Rotate bellcrank (8) for access to bolt (43) at connecting link (3).

(5) Remove cotter pin (29), nut (39), washers (37), bushing (38), and bolt (43).

(6) Remove cotter pin (52), nut (51), washer (50) and screw (49).

(7) Open cover (47 for timer bellcrank (8, Detail D) assembly).

(8) Screw threaded end of IFR PROBE mechanism pin puller into head of pin (48, detail D) and remove pin and bellcrank (8).

5. LEVER.

a. Remove aircraft ground safety lock, if installed (A1-F18AC-PCM-000).



To prevent damage to aircraft, area surrounding probe area must be free of obstructions.

b. Make sure probe area is clear of obstructions.

c. In door 10L, on no. 8 circuit breaker panel assembly, close IFR PROBE circuit breaker, if applicable.

d. Apply external electrical power (A1-F18AC-LMM-000).

e. On cockpit FUEL control panel, set PROBE control switch to RETRACT.

f. Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to retract. Immediately reduce

hydraulic flow to allow slow retraction of probe. Retract probe until probe door is fully open.

g. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

h. Open door 10L (A1-F18AC-LMM-010), if applicable.

i. On no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

j. At lever (4, detail F), remove cotter pin (29), nut (68), washer (62), bushing (76), and screw (75).

k. Remove bolt (79), washer (33), bushing (77), bearing sleeve (74), connecting link (3), and lever (4).

l. To separate connecting link (3) and lever (4), remove cotter pin (29), nut (81), washer (37), bushing (80), and screw (78).

6. SPRING.

a. Refer to figure 2 for local manufacture spring retention tool.

b. Position spring retention tool on spring (61, figure 1, detail E).

c. Remove cotter pins (29 and 67), nuts (64 and 68), washers (62 and 69), bearing (65), bushings (59 and 60), and bolt (63).

d. Remove spring (61) with spring retention tool.

e. Compress spring (61) and remove spring retention tool.

7. INSTALLATION.

8. SPRING.

a. Refer to figure 2 for local manufacture spring retention tool.

b. Compress spring (61, figure 1, detail E) and install spring retention tool.

c. Install bearing (65) spring (61), with spring retention tool, on bellcrank (66).

d. Install bolt (63), washers (62 and 69), bushings (59 and 60), and nuts (64 and 68).

e. Remove spring retention tool.

f. Torque nuts (64 and 68) 30 to 40 inch-pounds and safety with cotter pins (29 and 67). (QA)

9. LEVER.

a. Position connecting link (3, figure 1, detail F) in lever (4) and install screw (78), bushing (80), washer (37), and nut (81). Torque nut 60 to 85 inch-pounds. (QA)

b. Safety nut (81) with cotter pin (29). (QA)



Grease, Aircraft

11

c. Lubricate lever (4).

d. Install bushing (77), bearing sleeve (74) and position lever (4) with connecting link (3) in trough. Install bolt (79) with washer (33) and torque bolt 270 to 300 inch-pounds. Safety bolt (79) with lockwire. (QA)

e. Position connecting link (5) in lever (4) and install screw (75), bushing (76), washer (62), and nut (68). Torque nut 30 to 40 inch-pounds. (QA)

f. Safety nut (68) with cotter pin (29). (QA)

10. BELLCRANKS.

a. If installing bellcrank (8, figure 1), do substeps below:

(1) Position bellcrank (8, detail D) in trough and insert pin (48) and IFR probe pin puller through timer bellcrank cover (47) opening until pin is firmly in position in bellcrank.

(2) Center hole in pin (48) with hole in bellcrank (8) and install screw (49), washer (50), and nut (51).

(3) Safety nut (51) with cotter pin (52). (QA)

(4) Unscrew IFR probe pin puller from pin (48).

(5) Install cover (44, for timer bellcrank door assembly).

(6) Position connecting link (3, detail C) in bellcrank (8) and install bolt (43), washers (37), bushings (38), and nut (39). Torque nut 60 to 85 inch-pounds. (QA)

(7) Safety nut (39) with cotter pin (29). (QA)

(8) Position connecting link (7) and install screw (44), bushing (38), washer (37), and nut (28).

(9) Torque nut (28) 95 to 110 inch-pounds and safety with cotter pin (29). (QA)

(10) Position connecting link (9) and install screw (42), bushing (38), washer (37), and nut (39).

(11) Torque nut (39) 60 to 85 inch-pounds and safety with cotter pin (46). (QA)

b. If installing bellcrank (2, figure 1), do substeps below:

(1) Position bellcrank (2, detail D) in trough and insert pin (31) and IFR probe pin puller through timer bellcrank door opening (47) until pin is firmly in position in bellcrank.

(2) On 161702 AND UP, center hole in pin (31) with hole in bellcrank (2) and install bolt (22, detail A), washers (14 and 17) and nut (19) handtight.

(3) On 161353 THRU 161528, do substeps below:

(a) Center hole in pin (31, detail D) with hole in bellcrank (2) and install bolt (55), washers (54), and nut (53).

(b) Torque nut (53) 12 to 17 inch-pounds and safety with cotter pin (46). (QA)

(4) Unscrew IFR probe pin puller from pin (31) and install timer bellcrank door assembly (47).

(5) Install bearing sleeve (41) in connecting link (1), bushing (32) in bellcrank (2) and position connecting link (1) in bellcrank (2). Install screw (40), washer (33), and nut (34). Torque nut (34) 270 to 300 inch-pounds. (QA)

(6) Safety nut (34) with cotter pin (35). (QA)

(7) Remove refueling probe aircraft ground safety lock (A1-F18AC-PCM-000).

(8) Position connecting link (9) in bellcrank (2) and install bolt (36), washers (37), bushing (38), and nut (39). Torque nut (39) 60 to 85 inch-pounds. (QA)

(9) Safety nut (39) with cotter pin (29). (QA)

(10) On 161702 AND UP, do substeps below:

(a) Prepare mating surfaces of floodlight (detail A), screws (11) and bellcrank (2) for electrical bonding (A1-F18AC-LMM-000).

(b) Position floodlight and install screws (11).

(c) Install screws (10 and 21), spacers (12 and 20), clamps (13), washers (14), and nuts (15).

(d) Remove nut (19) and washer (17).

(e) Position clamp (16) and install washer (17) and nut (19). Torque nut 12 to 17 inch-pounds and safety with cotter pin (18). (QA)

11. CONNECTING LINKS.

a. If installing connecting link (7, figure 1), do substeps below:

(1) Adjust connecting link (7) to length recorded in substep 3d(3). Safety nut on connecting link with lockwire. (QA)

(2) Position inflight refueling probe actuator cylinder (detail E) and nonadjustable end of connecting link

(7) in bellcrank (6) and install bolt (56), washer (27), bushings (57), and nut (28). Torque nut 160 to 210 inch-pounds. (QA)

(3) Safety nut (28) with cotter pin (29). (QA)

(4) Position adjustable end of connecting link (7) in bellcrank (8, detail C) and install screw (44), bushing (45), washer (27), and nut (28). Torque nut 95 to 110 inch-pounds. (QA)

(5) Safety nut (28) with cotter pin (29). (QA)

b. If installing connecting link (5, figure 1), do substeps below:

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

(1) Make sure EMER IFR circuit breaker is open.

(2) Position connecting link (5, detail F) and install bolt (71), screw (75), washers (62 and 72), bushings (73 and 76), and nuts (64 and 68). Torque nuts (64 and 68) 30 to 40 inch-pounds. (QA)

(3) Safety nuts (64 and 68) with cotter pins (29). (QA)

c. If installing connecting link (3, figure 1), do substeps below:

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

(1) Make sure EMER IFR circuit breaker is open.

(2) Adjust connecting link (3) to length recorded in substep 3b(13). Safety with lockwire. (QA)

(3) Position nonadjustable end of connecting link (3, detail F), in lever (4) and install screw (78), bushing (80), washer (37), and nut (81). Torque nut 60 to 85 inch-pounds. (QA)

(4) Safety nut (81) with cotter pin (29). (QA)

(5) Install bushing (77), bearing sleeve (74) and position lever (4) with connecting link (3) in trough. Install bolt (79) with washer (33). Torque bolt (79) 270 to 300 inch-pounds. (QA)

(6) Position connecting link (5) in lever (4) and install screw (75), bushing (76), washer (62) and nut (68). Torque nut 30 to 40 inch-pounds. (QA)

(7) Safety nut (68) with cotter pin (29). (QA)

(8) Position adjustable end of connecting link (3, detail C) in bellcrank (8) and install bolt (43), bushing (38), washers (37), and nut (39). Torque nut 60 to 85 inch-pounds. (QA)

(9) Safety nut (39) with cotter pin (29). (QA)

d. If installing connecting link (9, figure 1), do substeps below:

(1) Adjust connecting link (9) to length recorded in substep 3a(3). Safety nut on connecting link with lockwire. (QA)

(2) Position adjustable end of connecting link (9, detail C) in bellcrank (8) and install screw (42), bushing (38), washer (37), and nut (39). Torque nut 60 to 85 inch-pounds. (QA)

(3) Safety nut (39) with cotter pin (46). (QA)

(4) Position nonadjustable end of connecting link (9, detail B) in bellcrank (2) and install bolt (36), washers (37), bushing (38), and nut (39). Torque nut 60 to 85 inch-pounds. (QA)

(5) Safety nut (39) with cotter pin (29). (QA)

12. INSPECTION.

a. When drive mechanism installation is complete, inspect probe per substeps below:

(1) Remove refueling probe ground safety lock (A1-F18AC-PCM-000), if installed.

(2) In door 10L, on no. 8 circuit breaker panel assembly, close IFR PROBE circuit breaker, if applicable.

(3) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(4) On cockpit FUEL control panel, set PROBE control switch to EXTEND.

(5) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

(6) In door 10L, on no. 8 circuit breaker panel assembly, open IFR PROBE circuit breaker.

(7) Determine center of bellcrank (2, detail G) by measuring across bellcrank.

(8) Using straight edge, aligned between mark established in substep 12a(7) and center of apex, observe that apex is aligned with straight edge. If apex is not aligned ± 0.10 inch, rig probe (WP088 00). (QA)

b. In door 10L, on no. 8 circuit breaker panel assembly, close IFR PROBE circuit breaker. Make sure EMER IFR circuit breaker is closed.

c. Close door 10L (A1-F18AC-LMM-010).

d. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

e. In cockpit on left throttle grip, set exterior light switch to on (forward).

f. On cockpit FUEL control panel, set PROBE control switch to RETRACT. Probe mechanism must operate without binding and inflight refueling floodlight must come on.

g. In cockpit, on left throttle grip, set exterior light switch to off (aft).

h. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

13. ILLUSTRATED PARTS BREAKDOWN.

14. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

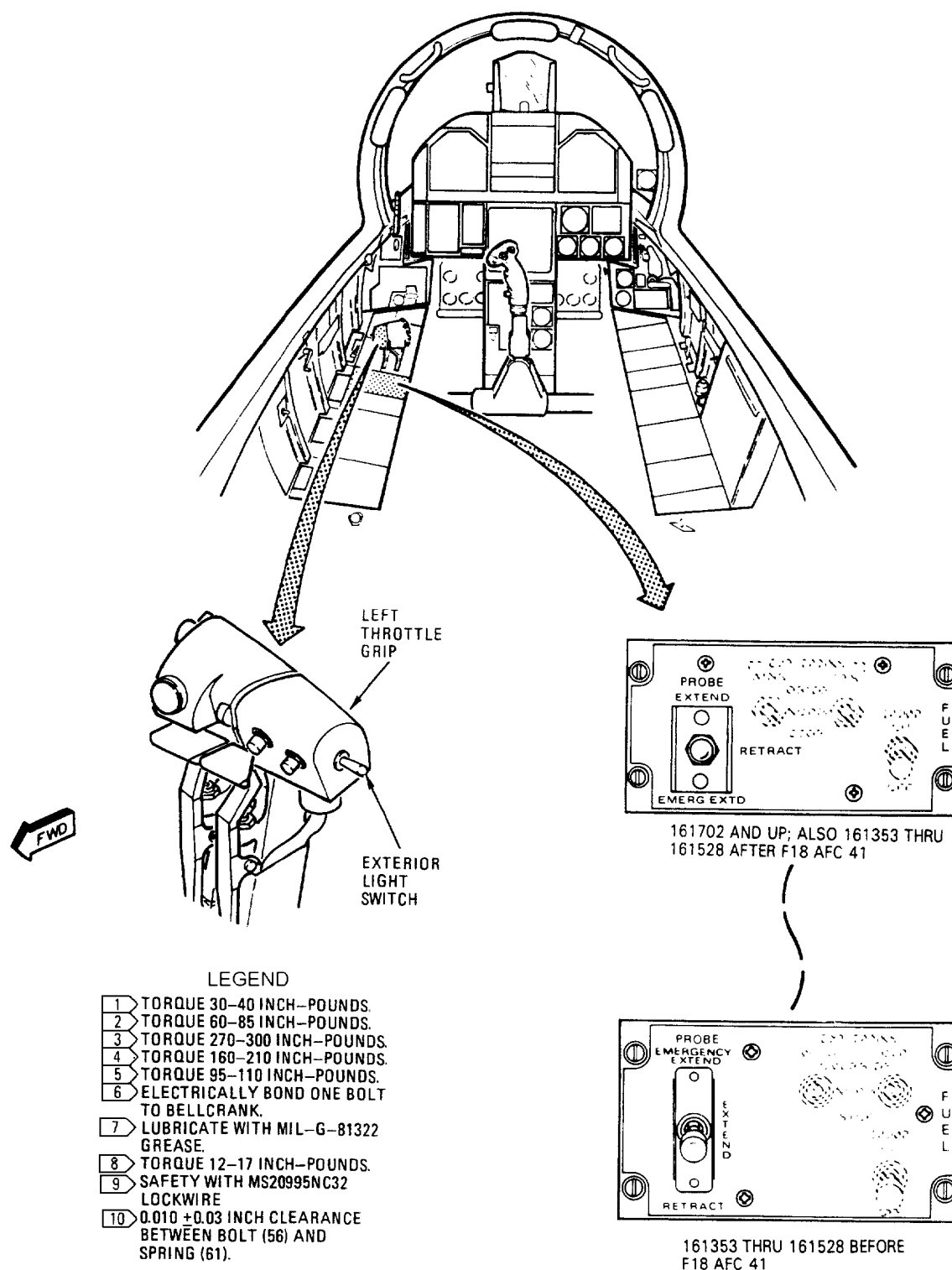
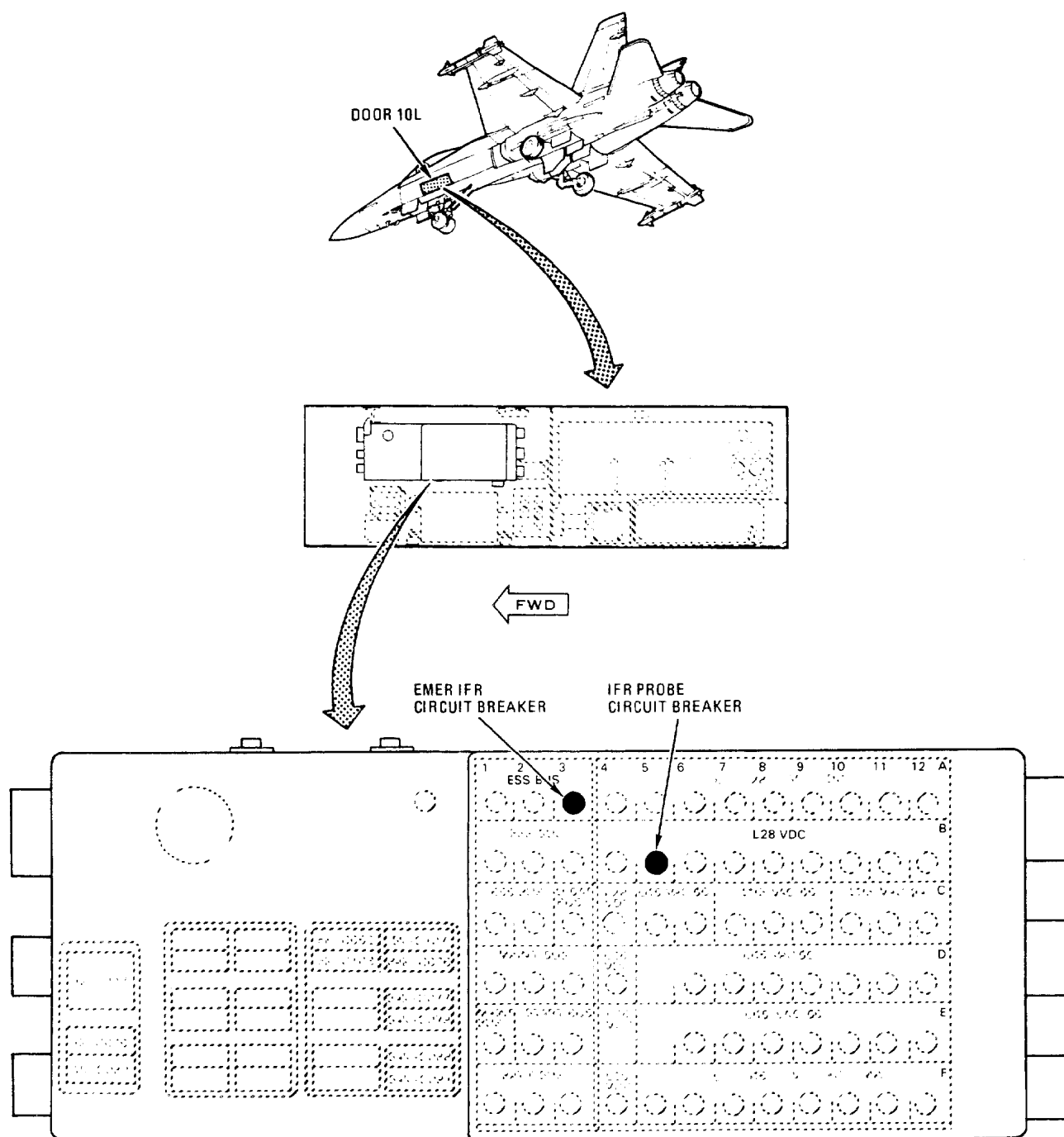
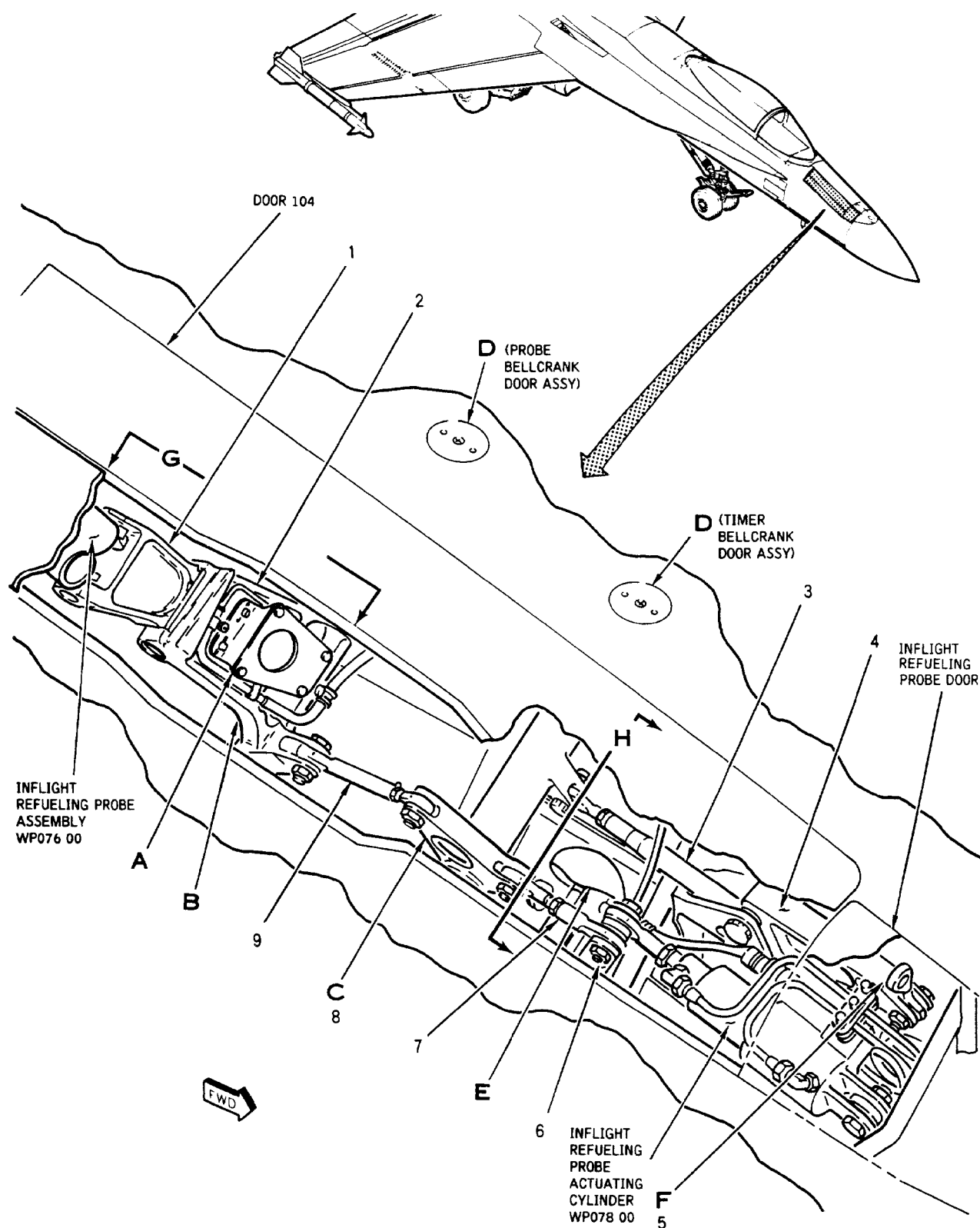


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 1)



52A-C159 NO. 8 CIRCUIT BREAKER/ RELAY PANEL ASSEMBLY

Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 2)



07700103

Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 3)

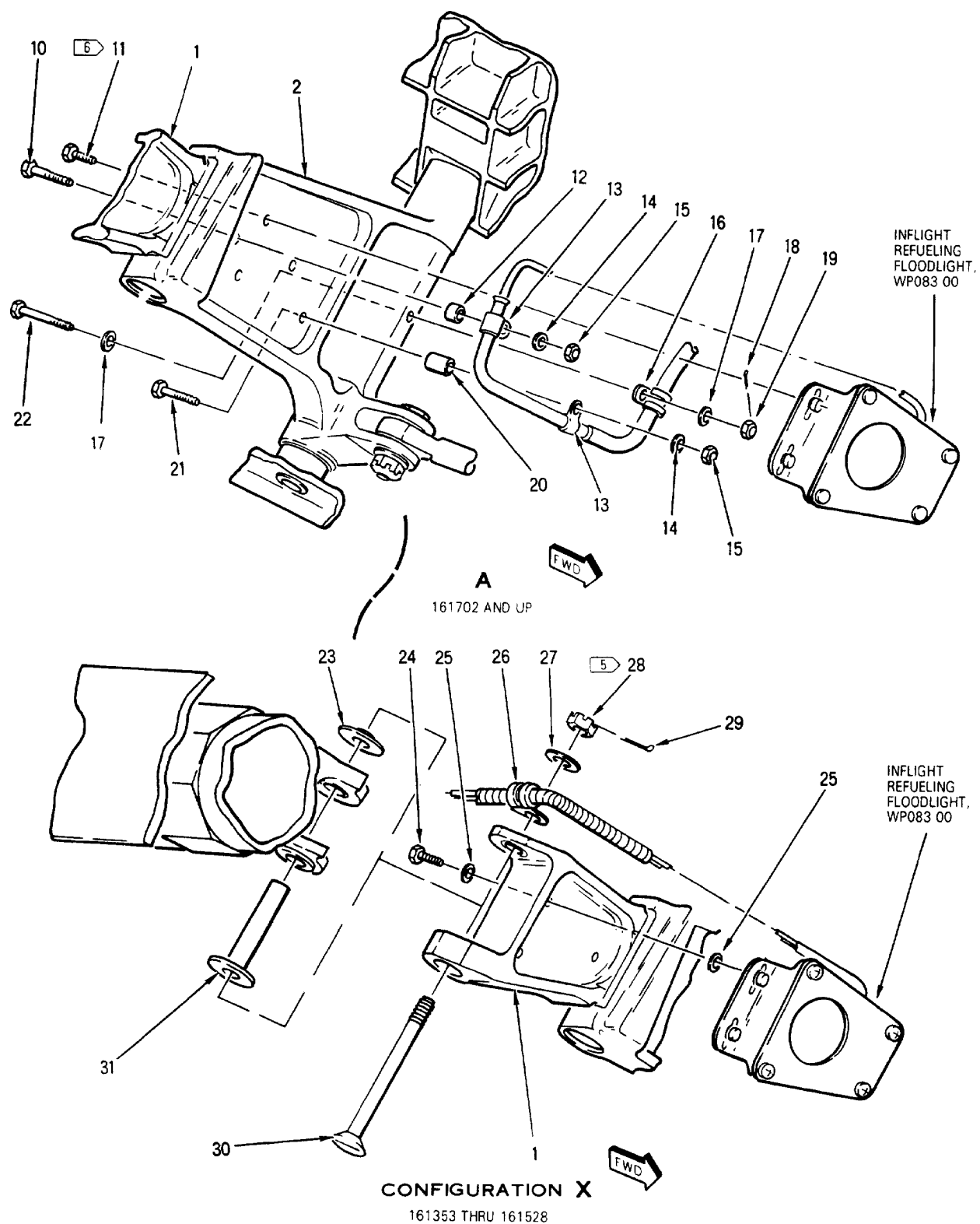


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 4)

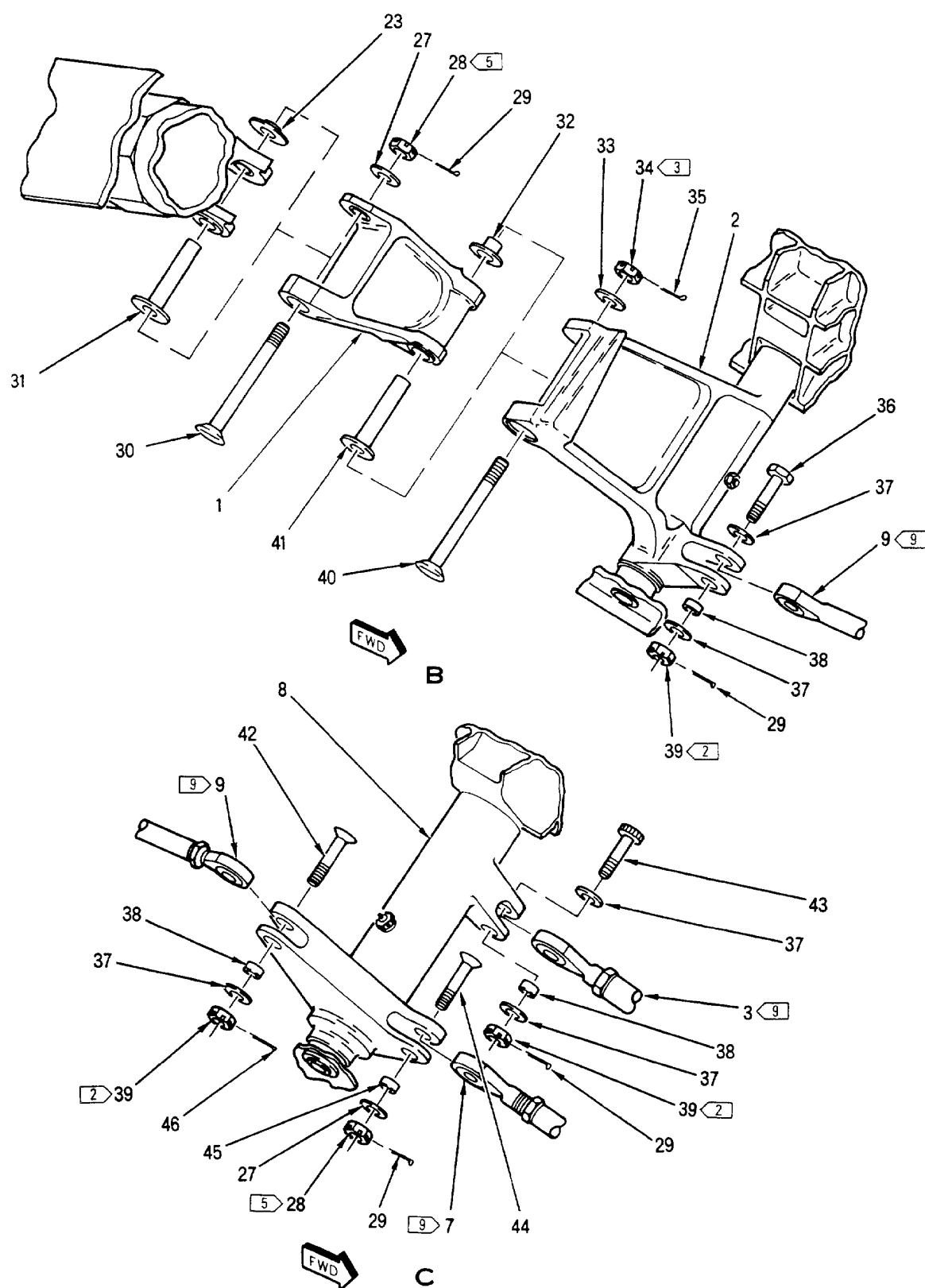


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 5)

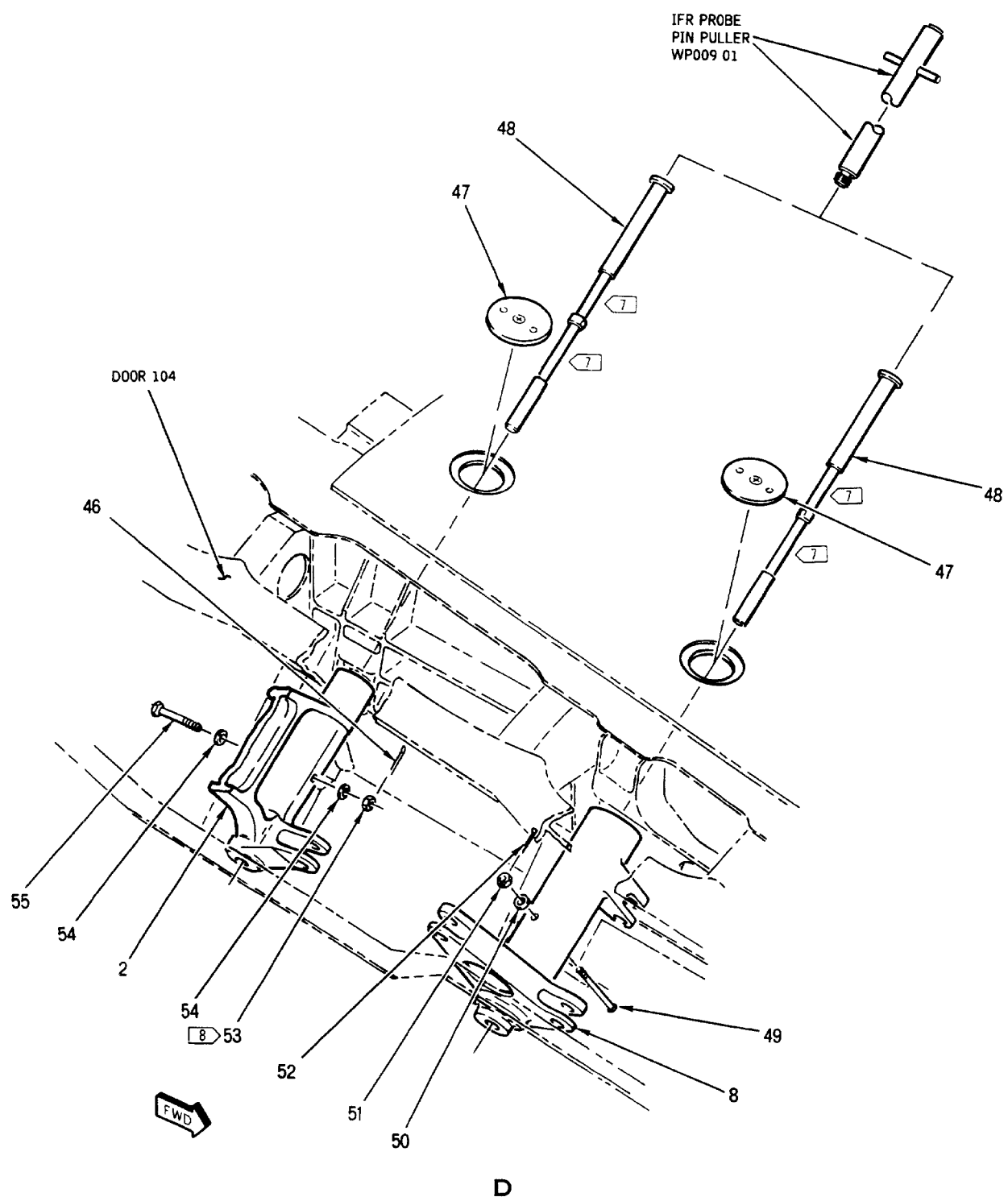


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 6)

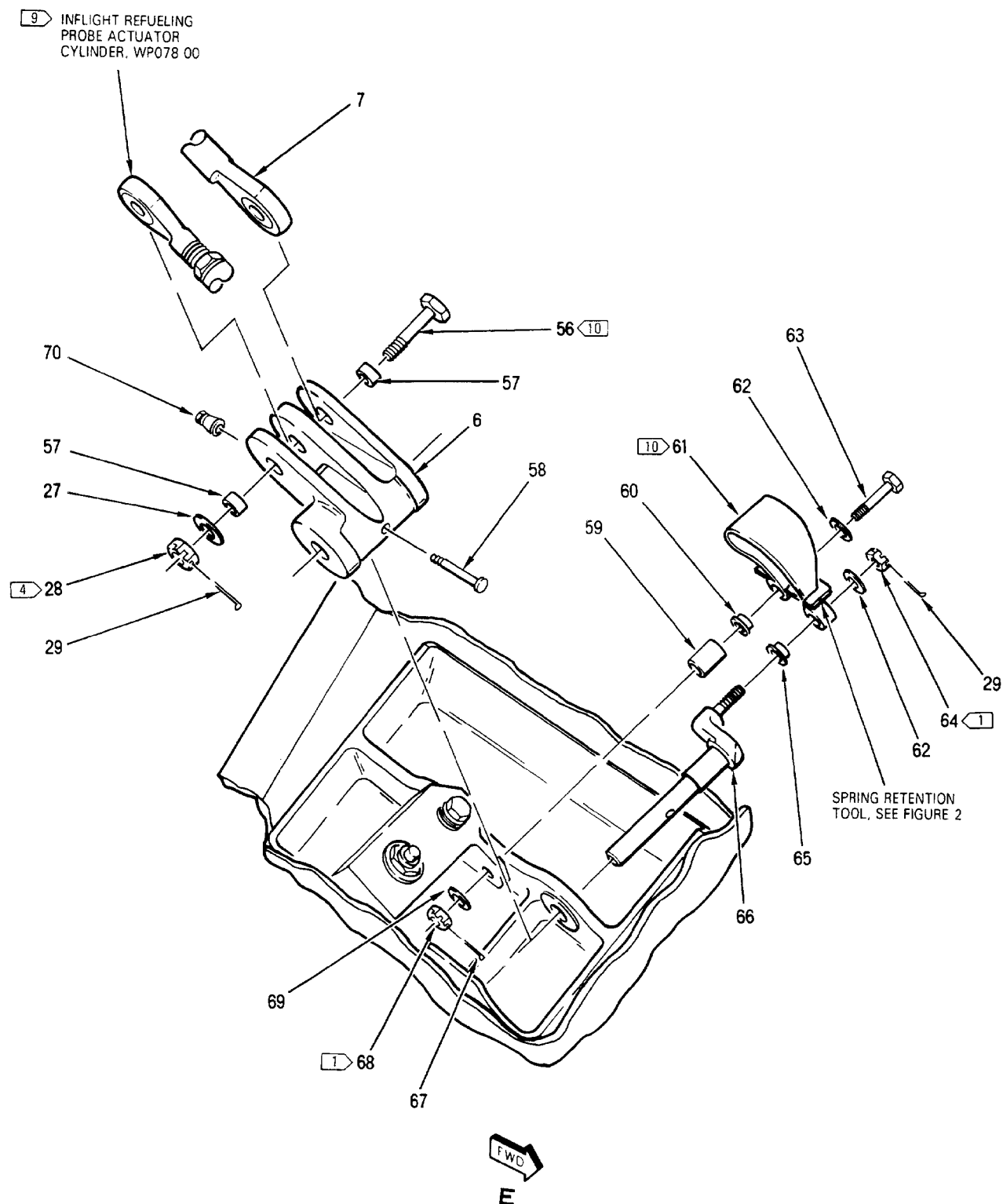


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 7)

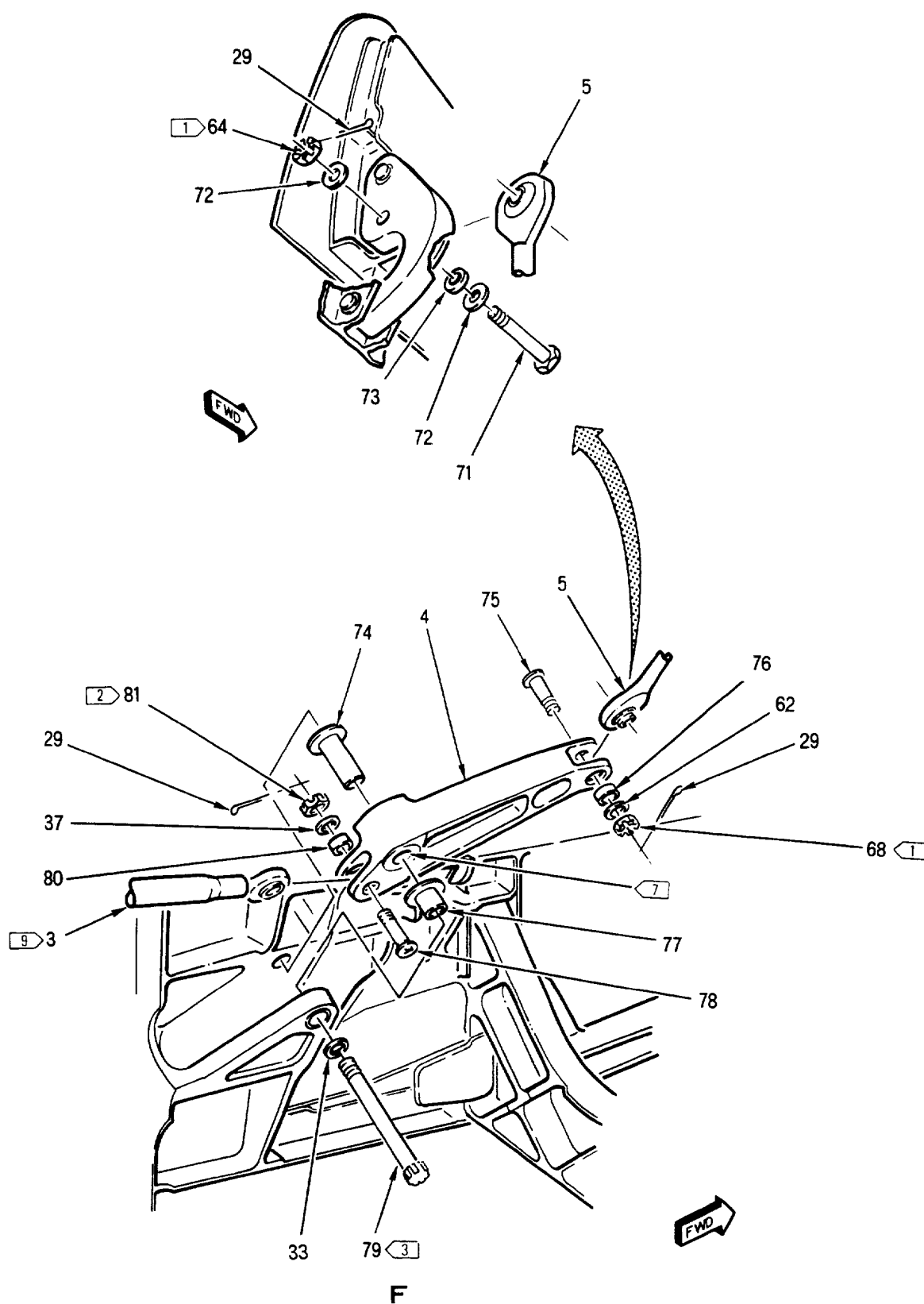


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 8)

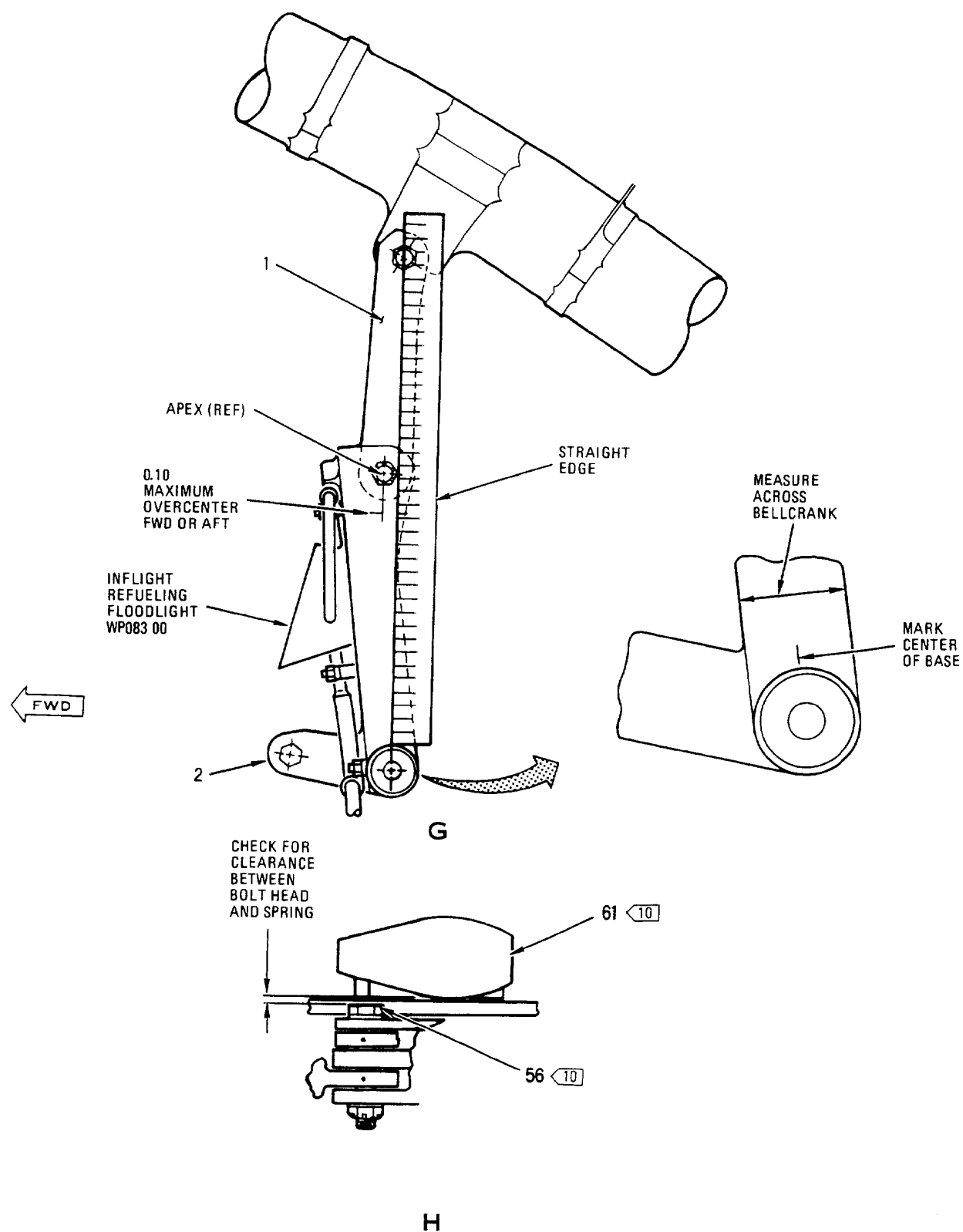


Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 9)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		INFLIGHT REFUELING PROBE AND			
		DOOR DRIVE MECHANISM			
1	74A661229-1001	. CONNECTING LINK, RIGID -	1		XBOGG
		IN-FLIGHT REFUELING PROBE (76301)			
2	74A661228-1001	. BELLCRANK - REFUEL	1		XBOGG
		ACTUATOR (76301)			
3	SR11574A115	. CONNECTING LINK, RIGID -	1		PBOZZ
		MECHANISM, IFR (97393) (MCDONNELL SPEC 74J668000-115) (REPLACES SR11574A113)			
	SR11574A113	. CONNECTING LINK, RIGID -	1	C	PBOZZ
		MECHANISM, IFR (97393) (MCDONNELL SPEC 74J668000-113) (USE UNTIL EXHAUSTED)			
4	74A661208-1001	. LEVER ASSY - DOOR ACTUATOR,	1		XBOGG
		IN-FLIGHT REFUEL PROBE (76301)			
5	74A661260-1001	. CONNECTING LINK, RIGID -	1		PAOZZ
		DOOR, IN-FLT RFL (76301)			
6	74A661245-2009	. BELLCRANK - ACTUATOR, IN-FLIGHT	1		PAOZZ
		REFUEL PROBE (76301) (DRILL ON INSTALLATION)			
7	74A661262-1001	. CONNECTING LINK, RIGID - DOOR,	1		PAOZZ
		DRIVE, IN-FLT RFL PROBE (76301)			
8	74A661207-1003	. BELLCRANK - TIMER, IN-FLIGHT	1		PBOGG
		REFUEL PROBE (76301)			
	74A661207-1001	. BELLCRANK - TIMER, IN-FLIGHT	1	*	PBOGG
		REFUEL PROBE (76301) (DRILL ON INSTALLATION)			
9	74A661261-1001	. CONNECTING LINK, RIGID - DRIVE,	1		PAOZZ
		IN-FLT RFL PROBE (76301)			
10	NAS583-9	. SCREW	1	B	PAOZZ
11	NAS583-7	. SCREW	1	B	PAOZZ
12	NAS43DD3-16	. SPACER	1	B	PAOZZ
13	AN735D4	. CLAMP	2	B	PAOZZ
14	AN960JD10	. WASHER	2	B	PAOZZ
15	MS21042L3	. NUT	2	B	PAOZZ
16	MS21919WDF6	. CLAMP	1	B	PAOZZ
17	AN960JD10L	. WASHER	2	B	PAOZZ
18	MS24665-153	. PIN, COTTER	1	B	PAOZZ
19	MS17825-3	. NUT	1	B	PAOZZ
20	NAS43DD3-36	. SPACER	1	B	PAOZZ
21	NAS583-15	. SCREW	1	B	PAOZZ
22	NAS6303U20D	. BOLT	1	B	PADZZ
23	74A661257-2003	. BUSHING - SLEEVE LINK IN-FLIGHT	1		PAOZZ
		REFUEL PROBE (76301)			
24	NAS1303-7H	. BOLT	3	A	PAOZZ
25	AN960JD10	. WASHER	6	A	PAOZZ
26	TA612WD5	. CLAMP, LOOP (84971)	1	A*	PAOZZ
		(MCDONNELL SPEC 9M636D5)			
	1445WD4N	. CLAMP, LOOP (83930)	1	A*	PAOZZ
		(MCDONNELL SPEC 9M636D5)			
27	AN960C616L	. WASHER	3		PAOZZ

Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 10)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
28	E10080-6	.	NUT, PLAIN, SLOTTED, HEXAGON	.					3	*	PAOZZ
		.	(72962) (MCDONNELL SPEC								
		.	ST3M404C6)								
	74640C6	.	SEE ABOVE (56878)	.					3	*	PAOZZ
	ST3M404C6	.	SEE ABOVE (92595)	.					3	*	PAOZZ
29	MS24665-229	.	PIN, COTTER	.					9		PAOZZ
30	HT4049-6D48	.	SCREW, CLOSE TOLERANCE (73197)	.					1		PAOZZ
		.	(MCDONNELL SPEC ST3M714-6D48)								
31	74A661270-2011	.	BEARING SLEEVE - IN-FLIGHT	.					1		PAOZZ
		.	RFL PROBE (76301)								
	74A661270-2001	.	SEE ABOVE (REPLACED BY	.					1	*	PAOZZ
		.	74A661270-2011) (USE								
		.	UNTIL EXHAUSTED)								
32	74A661227-2003	.	BUSHING, SLEEVE - BELLCRANK C,	.					1		PAOZZ
		.	IN-FLT REFUEL, PROBE (76301)								
33	AN960C716L	.	WASHER	.					2		PAOZZ
34	74640C7	.	NUT, PLAIN, SLOTTED, HEXAGON	.					1	*	PAOZZ
		.	(56878) (MCDONNELL								
		.	SPEC ST3M404C7)								
	E10080-7	.	SEE ABOVE (72962)	.					1	*	PAOZZ
	ST3M404C7	.	SEE ABOVE (92595)	.					1	*	PAOZZ
35	MS24665-231	.	PIN, COTTER	.					1		PAOZZ
36	NAS6305U12D	.	BOLT	.					1		PAOZZ
37	AN960C516L	.	WASHER	.					5		PAOZZ
38	ST4M166-5-0035	.	BUSHING, SLEEVE (76301)	.					3		PAOZZ
39	74640C5	.	NUT, PLAIN, SLOTTED, HEXAGON	.					3	*	PAOZZ
		.	(56878) (MCDONNELL								
		.	SPEC ST3M404C5)								
	E10080-5	.	SEE ABOVE (72962)	.					3	*	PAOZZ
	ST3M404C5	.	SEE ABOVE (92595)	.					3	*	PAOZZ
40	HT4049-7D49	.	SCREW, CLOSE TOLERANCE (73197)	.					1		PAOZZ
		.	(MCDONNELL SPEC ST3M714-7D49)								
41	74A661270-2015	.	BEARING SLEEVE - IN-FLIGHT RFL	.					1		PAOZZ
		.	PROBE (76301)								
	74A661270-2005	.	SEE ABOVE	.					1	*	PAOZZ
42	HT4049-5D13	.	SCREW, CLOSE TOLERANCE (73197)	.					1		PAOZZ
		.	(MCDONNELL SPEC ST3M714-5D13)								
43	AIC687-5D15	.	BOLT, CLOSE TOLERANCE (06725)	.					1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M744-5D15)								
	MB154-5D15	.	SEE ABOVE (73197)	.					1	*	PAOZZ
	VS3174-5D15	.	SEE ABOVE (92215)	.					1	*	PAOZZ
	VCG0001-5D15	.	SEE ABOVE (06710)	.					1	*	PAOZZ
	122895-5D15	.	SEE ABOVE (80539)	.					1	*	PAOZZ
	PBF1265-5D15	.	SEE ABOVE (27624)	.					1	*	PAOZZ
	S406-5D15	.	SEE ABOVE (97928)	.					1	*	PAOZZ
44	HT4049-6D14	.	SCREW, CLOSE TOLERANCE (73197)	.					1		PAOZZ
		.	(MCDONNELL SPEC ST3M714-6D14)								
45	ST4M166-6-003	.	BUSHING, SLEEVE (76301)	.					1		PAOZZ
46	MS24665-153	.	PIN, COTTER	.					2	A	PAOZZ
47	9M789-181-4	.	COVER, ACCESS (FOR PROBE	.					2		PAOZZ
		.	BELLCRANK & TIMER BELLCRANK								
		.	(76301) (INCLUDES LOCK, RETAINER,								
		.	SCREW, NUT AND WASHER)								

Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 11)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	ST9M551-181-4	.	SEE ABOVE (REPLACED BY 9M789-181-4) (USE UNTIL EXHAUSTED)						2	*	PAOZZ
48	74A661255-2009	.	PIN, SHOULDER, HEADED - BEL CRK, IN-FLT REFUEL (76301)						2		PAOZZ
	74A661255-2007	.	PIN, SHOULDER, HEADED - BEL CRK, IN-FLT REFUEL (76301) (REPLACED BY 74A661255-2009) (USE UNTIL EXHAUSTED)						2	*	PAOZZ
	74A661255-2005	.	SEE ABOVE (REPLACED BY 74A661255-2009) (USE UNTIL EXHAUSTED)						2	*	PAOZZ
49	HT4049-3D28	.	SCREW, CLOSE TOLERANCE (73197) (MCDONNELL SPEC ST3M714-3D28)						1		PAOZZ
50	AN960C10L	.	WASHER						1		PAOZZ
51	79318CM-1032	.	NUT, SELF-LOCKING, EXTENDED WASHER, HEXAGON, SLOTTED (56878) (MCDONNELL SPEC ST3M788-3)						1	*	PAOZZ
	E12589-3	.	SEE ABOVE (72962)						1	*	PAOZZ
52	MS24665-88	.	PIN, COTTER						1		PAOZZ
53	MS17825-3	.	NUT						1	A	PAOZZ
54	AN960JD10	.	WASHER						2	A	PAOZZ
55	NAS6303U19D	.	BOLT						1	A	PAOZZ
56	NAS6306U26D	.	BOLT						1		PAOZZ
57	ST4M166-6-004	.	BUSHING, SLEEVE (76301)						2		PAOZZ
58	HL654-YE-5-19	.	PIN-RIVET, THREADED (73197) (MCDONNELL SPEC ST3M457C08-19)						1	*	PAOZZ
	AIC-L-644-5-19	.	SEE ABOVE (06725)						1	*	PAOZZ
	MA4457-08-19	.	SEE ABOVE (58845)						1	*	PAOZZ
59	NAS77A4-31P	.	BUSHING						1		PAOZZ
60	4M106-04044	.	BUSHING, SLEEVE (76301)						1		PAOZZ
61	74A661272-2001	.	SPRING, FLAT - OVER CTR PROBE, STOWED, BEL CRK A (76301)						1		PAOZZ
62	AN960C416	.	WASHER						3		PAOZZ
63	NAS674V24D	.	BOLT						1		XBOZZ
64	74640C4	.	NUT, PLAIN, SLOTTED, HEXAGON (56878) (MCDONNELL SPEC ST3M404C4)						2	*	PAOZZ
	E10080-4	.	SEE ABOVE (72962)						2	*	PAOZZ
	ST3M404C4	.	SEE ABOVE (92595)						2	*	PAOZZ
65	74A661270-2009	.	BEARING, SLEEVE - IN-FLIGHT RFL PROBE (76301)						1		PAOZZ
66	74A661254-2005	.	PIN, BELLCRANK A - IN-FLT REFUEL PROBE (76301)						1		PAOZZ
67	MS24665-151	.	PIN, COTTER						1		PAOZZ
68	79317CM-428	.	NUT, SELF-LOCKING, EXTENDED WASHER, HEXAGON, CASTELLATED (56878) (MCDONNELL SPEC ST3M787-4)						2	*	PAOZZ
	E12695-4	.	SEE ABOVE (72962)						1	*	PAOZZ
69	AN960JD416	.	WASHER						1		PAOZZ
70	HL570-5MC	.	COLLAR, PIN-RIVET, THREADED (73197) (MCDONNELL SPEC ST3M525N08ME)						1		PAOZZ
71	NAS6304U20D	.	BOLT						1		PAOZZ

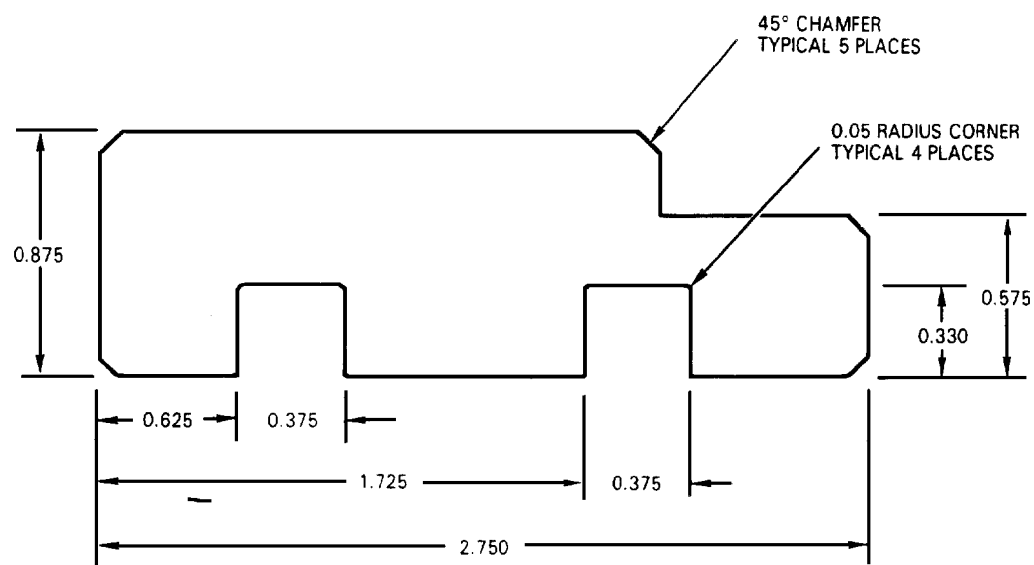
Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 12)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
72	AN960C416	.	WASHER	.....					2		PAOZZ
73	ST4M166-4-002	.	BUSHING, SLEEVE (76301)	.....					1		PAOZZ
74	74A661270-2017	.	BEARING SLEEVE - IN-FLIGHT RFL	.....					1		PAOZZ
			PROBE (76301) (REPLACES								
			74A661270-2013)								
	74A661270-2013	.	SEE ABOVE (USE UNTIL EXHAUSTED)	.....					1	*	PAOZZ
75	HT4024L4D14	.	SCREW, CLOSE TOLERANCE (73197)	.....					1		PAOZZ
			(MCDONNELL SPEC ST3M455-4DL14-1)								
76	ST4M166-4-003	.	BUSHING, SLEEVE (76301)	.....					1		PAOZZ
77	74A661227-2005	.	BUSHING, SLEEVE - BELLCRANK C,	.....					1		PAOZZ
			IN-FLT REFUEL, PROBE (76301)								
78	HT4048-5D-13	.	SCREW, MACHINE (73197) (MCDONNELL	.....					1		PAOZZ
			SPEC ST3M713-5D13)								
79	AIC687-7H59	.	BOLT, CLOSE TOLERANCE (06725)	.....					1	*	PAOZZ
			(MCDONNELL SPEC ST3M744-7H59)								
	VS3174-7H59	.	SEE ABOVE (92215)	.....					1	*	PAOZZ
	VCG0001-7H59	.	SEE ABOVE (06710)	.....					1	*	PAOZZ
	MB154-7H59	.	SEE ABOVE (73197)	.....					1	*	PAOZZ
	122895-7H59	.	SEE ABOVE (80539)	.....					1	*	PAOZZ
	PBF1265-7H59	.	SEE ABOVE (27624)	.....					1	*	PAOZZ
	S406-7H59	.	SEE ABOVE (97928)	.....					1	*	PAOZZ
80	ST4M166-5-004	.	BUSHING, SLEEVE (76301)	.....					1		PAOZZ
81	79318CM-524	.	NUT, SELF-LOCKING, EXTENDED	.....					1	*	PAOZZ
			WASHER, HEXAGON SLOTTED								
			(56878) (MCDONNELL SPEC ST3M788-5)								
	E12589-5	.	SEE ABOVE (72962)	.....					1	*	PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161528	F/A-18A/B
B	161702 & UP	F/A-18A/B
C	161353 THRU 161956	F/A-18A/B

Figure 1. Inflight Refueling Probe and Door Drive Mechanism (Sheet 13)



LEGEND

1. LOCAL MANUFACTURE USING 0.125 INCH STEEL 0.875 X 2.75.
2. ALL DIMENSIONS ARE IN INCHES

Figure 2. Spring Retention Tool

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE ACTUATING CYLINDER
(5HPB006)
AND
HYDRAULIC TUBE ASSEMBLIES
INFLIGHT REFUELING SYSTEM

Reference Material

Line Maintenance Procedures A1-F18AC-LMM-000
Plane Captain Manual A1-F18AC-PCM-000

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Support Equipment Required	
Actuating Cylinder	2
Hydraulic Tubes	4

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

1. ACTUATING CYLINDER.

Support Equipment Required

Part Number or Type Designation	Nomenclature
External Electrical Power Source	-
External Hydraulic Power Source	-
Torque Wrench, 0 to 60 Inch-Pounds	-
Torque Wrench, 0 to 600 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin	MS24665-229
Cotter Pin	MS24665-302
Tape, Pressure Sensitive	A-A-883, Type 1, In (CAGE 58536)
Wire, Saftey, Nonelectrical	MS20995NC32 (CAGE 96906)

2. REMOVAL.

- a. Apply external electrical power (A1-F18AC-LMM-000).
- b. On cockpit FUEL system control panel (figure 1), set PROBE control switch to EXTEND.
- c. Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to extend. Immediately reduce flow to allow slow extension of probe. Extend probe until probe door is fully open then turn off external hydraulic power.

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

- d. Open door 10L (A1-F18AC-LMM-010). On no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

- e. At lever (10, figure 1) remove screw (8), bushing (9), and attaching parts and remove connecting link (7) from lever.

- f. Hold probe door open with tape.

- g. Turn on hydraulic power (A1-F18AC-LMM-000) and extend probe all the way.

- h. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, refueling probe aircraft ground safety lock must be installed when working in probe area. If part cannot be removed with ground safety lock installed, IFR PROBE circuit breaker must be open.

- i. Install refueling probe aircraft ground safety lock (A1-F18AC-PCM-000).

- j. In door 10L (A1-F18AC-LMM-010), on no. 8 circuit breaker panel assembly, open IFR PROBE circuit breaker.

NOTE

If required, adapters (11, figure 1) and packings on this component may be replaced (NAVAIR 01-1A-15).

- k. Disconnect connector (2).

- l. Remove bolt (14), washers (15 and 16), and disconnect lead (4) from structure.

- m. Disconnect hydraulic tubes per substeps below:

(1) Remove block (1, figure 2), shim(s) (8) and attaching parts from tubes (3 and 4). If same cylinder will be reinstalled, keep block (1), shim(s) (8), and attaching parts together as an assembly for reinstallation at the same location or misalignment will result.

- (2) Disconnect tubes (3 and 4) from elbows (2).

- n. Remove bolt (18, figure 1, detail A), bushings (17) and attaching parts.

- o. Remove bolt (13), bushing (12), and attaching parts.



Titanium alloy tubes will break if excessively flexed or twisted.

p. Remove cylinder (1) from trough.

q. If required, remove elbows (3). Adapters (11) and packings in cylinder (1) may be replaced (NAV-AIR 01-1A-15).

r. If required, remove lead (4) from cylinder.

s. Record the retracted length of cylinder (1).

3. INSTALLATION.

a. If removed, install elbows (3, figure 1) and adapters (11) on cylinder (1). Do not tighten elbows.

b. Make sure electrical and hydraulic power are removed from aircraft (A1-F18AC-LMM-000).

c. Adjust cylinder (1), retracted and locked length to length recorded in step 2s of removal. Tighten jam-nut on cylinder and safety with lockwire. (QA)

d. Prepare mating surfaces of cylinder (1), structure and lead (4) for electrical bonding (A1-F18AC-LMM-000).

e. Install lead (4) on cylinder (1) and on structure with bolt (14) and washers (15 and 16).



Titanium alloy tubes will break if excessively flexed or twisted.

f. Position cylinder (1) in trough, install bolt (13, detail A), bushing (12) and attaching parts. Torque nut 160 to 210 inch-pounds and safety with cotter pin. (QA)

g. Install bolt (18, figure 1), bushings (17) and attaching parts. Torque nut 160 to 210 inch-pounds and safety with cotter pin. (QA)

h. Install tubes per substeps below:

(1) If same cylinder is to be installed, install old shims (8, figure 2) under block (1).

(2) If new cylinder is to be installed, make sure gap between tubes (3 and 4, detail D) and cutout in lower block (1) is 0.120 inch maximum. Add or subtract shims as required.

NOTE

Remove protective paper on shims before installing

(3) Install upper block (1) and attaching parts.

(4) Connect tube assemblies (3 and 4) to elbows (2) on cylinder, handtight only.

(5) Torque block (1) bolts 20 to 25 inch-pounds. (QA)

(6) Tighten tube assemblies (3 and 4).

(7) Tighten elbows (2).

i. Connect connector (2, figure 2, detail A).

j. Apply external hydraulic power to hydraulic system 2, with test stand reservoir selector valve in TEST STAND RESERVOIR position (A1-F18AC-LMM-000).

k. Apply external electrical power (A1-F18AC-LMM-000).

l. Remove refueling probe aircraft ground safety lock (A1-F18AC-PCM-000).

m. On no. 8 circuit breaker panel, close IFR PROBE circuit breaker and EMER IFR circuit breaker.

n. Do substeps below:

(1) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

(2) On 161353 THRU 161528, set PROBE control switch to EMERGENCY EXTEND.

(3) On 161702 AND UP, set PROBE control switch to EMERG EXTND.

(4) Inspect cylinder (1) area for leaks. (QA)

(5) Repeat substeps (1) and (2) four times.

(6) Set PROBE control switch to RETRACT.

(7) Set PROBE control switch to EXTEND.

(8) Repeat substeps (5) and (6) four times.

o. Turn off hydraulic power (A1-F18AC-LMM-000).

p. On cockpit fuel control panel, set PROBE control switch to RETRACT.

q. Turn on hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to retract. Immediately reduce flow to allow slow retraction of probe. Retract probe until lever (10, figure 1, detail B) is rotated all the way out.

r. Turn off hydraulic power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

s. In door 10L, on no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

t. Install link (7) in lever (10) with screw (8), bushing (9) and attaching parts. Torque nut 30 to 40 inch-pounds and safety with cotter pin. (QA)

u. Turn on hydraulic power (A1-F18AC-LMM-000) to close probe.

v. In door 10L, on no. 8 circuit breaker panel assembly, close EMER IFR circuit breaker.

w. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

x. Service hydraulic system 2 reservoir (A1-F18AC-PCM-000).

4. HYDRAULIC TUBES.

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power	-
External Hydraulic Power	-
Torque Wrench, 0 to 50 Inch-Pounds	-
Torque Wrench, 0 to 600 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin	MS24665-229

5. REMOVAL.

CAUTION

Hydraulic tubes are to be removed when actuating cylinder is retracted and locked in position (probe in extend position).

a. Apply hydraulic and electrical power (A1-F18AC-LMM-000).

b. On FUEL system control panel, set PROBE control switch to EXTEND (figure 1).

c. Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to extend. Immediately reduce flow to allow slow extension of probe. Extend probe until probe door is fully open then turn off external hydraulic power.

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

d. Open door 10L (A1-F18AC-LMM-010). On no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

e. At lever (10, figure 1), remove screw (8), bushing (9), and attaching parts and remove connecting link (7) from lever.

f. Hold probe door open with tape.

g. Turn on hydraulic power (A1-F18AC-LMM-000) and extend probe all the way.

h. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, probe ground safety lock must be installed when working in probe area. If part cannot be removed with ground safety lock installed, IFR PROBE circuit breaker and EMER IFR circuit breaker must be open.

i. Do applicable substep below:

(1) Install probe ground safety lock (A1-F18AC-PCM-000).

(2) Open door 10L (A1-F18AC-LMM-010). On no. 8 circuit breaker panel assembly, open IFR PROBE circuit breaker and EMER IFR circuit breaker.

NOTE

If required, adapters and packings on this component may be replaced (NAVAIR 01-1A-15).

j. Remove block (1, figure 2), shim(s) (8) and attaching parts from tubes (3 and 4). If same cylinder will be reinstalled, keep block assembly, shim(s) and attaching parts together as an assembly for reinstallation at the same location or misalignment will result.

k. Disconnect tubes (3 and 4) from elbows (2).

l. Remove bolt (14, figure 1, detail A), bushings (13) and attaching parts.

m. Rotate cylinder away from trough.

n. Remove block (5, figure 2, detail A), shims (7) and attaching parts from tubes (3 and 4). If same cylinder will be reinstalled, keep block assembly, shim

and attaching parts together as an assembly for reinstallation at the same location or misalignment will result.

o. Disconnect tube (3) from elbow (6) and remove.

p. Disconnect tube (4) from shuttle valve and remove.

6. INSTALLATION.

a. Make sure electrical and hydraulic power are removed from aircraft (A1-F18AC-LMM-000).

CAUTION

Hydraulic tubes are to be installed when actuating cylinder is retracted and locked in position (probe in extend position). Titanium alloy tubes will break if excessively flexed or twisted during removal or installation.

b. Position tubes (3 and 4, figure 2) so that blocks (5) and shim(s) (7) can be installed in trough structure.

c. Do substeps below to install blocks (1) on structural support.

(1) Make sure gap between tubes (3 and 4) and cutout in lower block (5) is 0.120 inch maximum. Add or subtract shims accordingly (detail C).

NOTE

Remove protective paper on shims before installing.

(2) Install upper block (5) and attaching parts. Torque bolts 20 to 25 inch-pounds. (QA)

d. Rotate cylinder back inside trough and install bolt (14, figure 1) with bushings (13), nut and attaching parts. Torque nut 160 to 210 inch-pounds and safety with cotter pin. (QA)

e. Position lower block (1, figure 2) and shims (8) on actuating cylinder.

f. Do substeps below to install blocks (5) and shim(s) (7).

(1) Make sure gap between tubes (3 and 4) and cutout in lower block (1) is 0.120 inch maximum. Add or subtract shims accordingly (detail D).

NOTE

Remove protective paper on shims before installing.

(2) Install upper block (1) and attaching parts. Torque bolts 20 to 25 inch-pounds. (QA)

g. Install tubes (3 and 4) to elbows (2) at actuating cylinder.

h. Connect opposite end of tubes (3 and 4) to elbow (6) and shuttle valve.

i. Apply external hydraulic power to hydraulic system 2, with test stand reservoir selector valve in TEST STAND RESERVOIR position (A1-F18AC-LMM-000).

j. Apply external electrical power (A1-F18AC-LMM-000).

k. Remove refueling probe aircraft ground safety lock (A1-F18AC-PCM-000).

l. On no. 8 circuit breaker panel, close IFR PROBE circuit breaker and EMER IFR circuit breaker.

m. Do substeps below, refer to figure 1:

(1) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

(2) On 161353 THRU 161528, set PROBE control switch to EMERGENCY EXTEND.

(3) On 161702 AND UP, set PROBE control switch to EMERG EXTND.

(4) Repeat substeps (1) and (2) or (3) four times.

(5) Set PROBE control switch to RETRACT.

(6) Set PROBE control switch to EXTEND.

(7) Repeat substeps (4) and (5) four times.

(8) Inspect cylinder (1) area for leaks. (QA)

n. Turn off hydraulic power (A1-F18AC-LMM-000).

o. On cockpit fuel control panel, set PROBE control switch to RETRACT.

p. Turn on hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to retract. Immediately reduce flow to allow slow retraction of probe. Retract probe until lever (10, figure 1, detail B) is rotated all the way out.

q. Turn off hydraulic power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

r. In door 10L, on no. 8 circuit breaker panel assembly, open EMER IFR circuit breaker.

s. Install link (7) in lever (10) with screw (8), bushing (9) and attaching parts. Torque nut 30 to 40 inch-pounds and safety with cotter pin. (QA)

t. Turn on hydraulic power (A1-F18AC-LMM-000) to close probe.

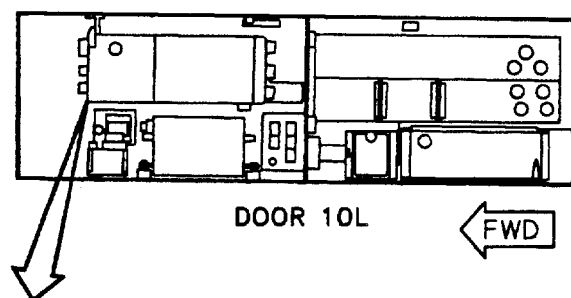
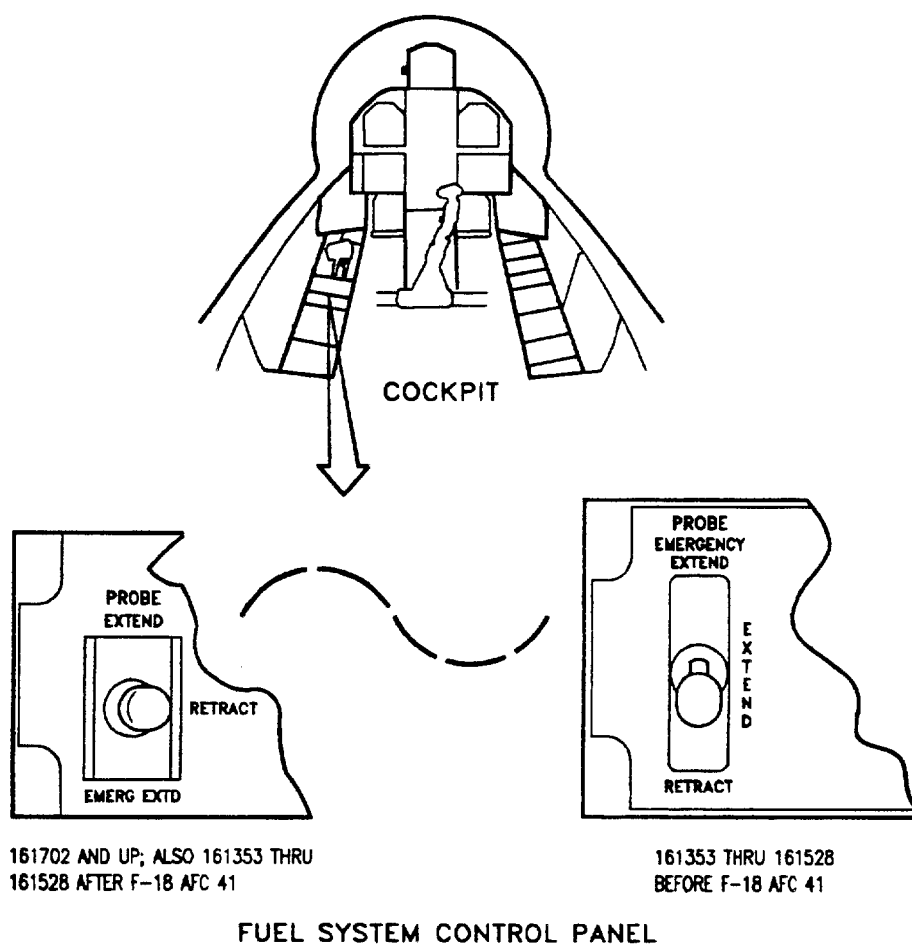
u. In door 10L, on no. 8 circuit breaker panel assembly, close EMER IFR circuit breaker.

v. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

w. Service hydraulic system 2 reservoir (A1-F18AC-PCM-000).

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



52A-C159 NO. 8 CIRCUIT BREAKER PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A3 B5	5CBC001 5CBC002	EMER IFR IFR- PROBE	ESS 24/28VDC L 28VDC

Figure 1. Inflight Refueling Probe Actuating Cylinder (5HPB006) (Sheet 1)

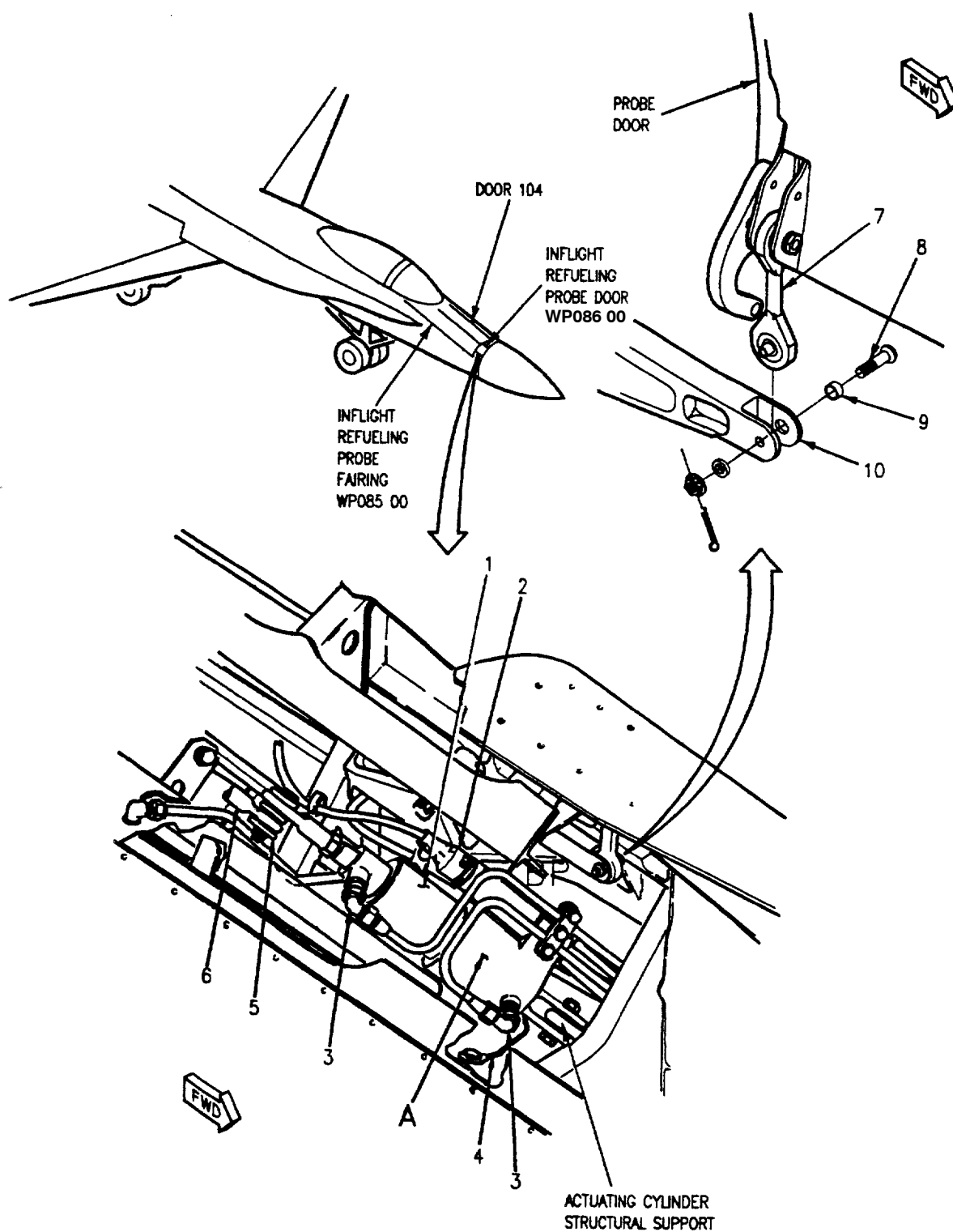


Figure 1. Inflight Refueling Probe Actuating Cylinder (5HPB006) (Sheet 2)

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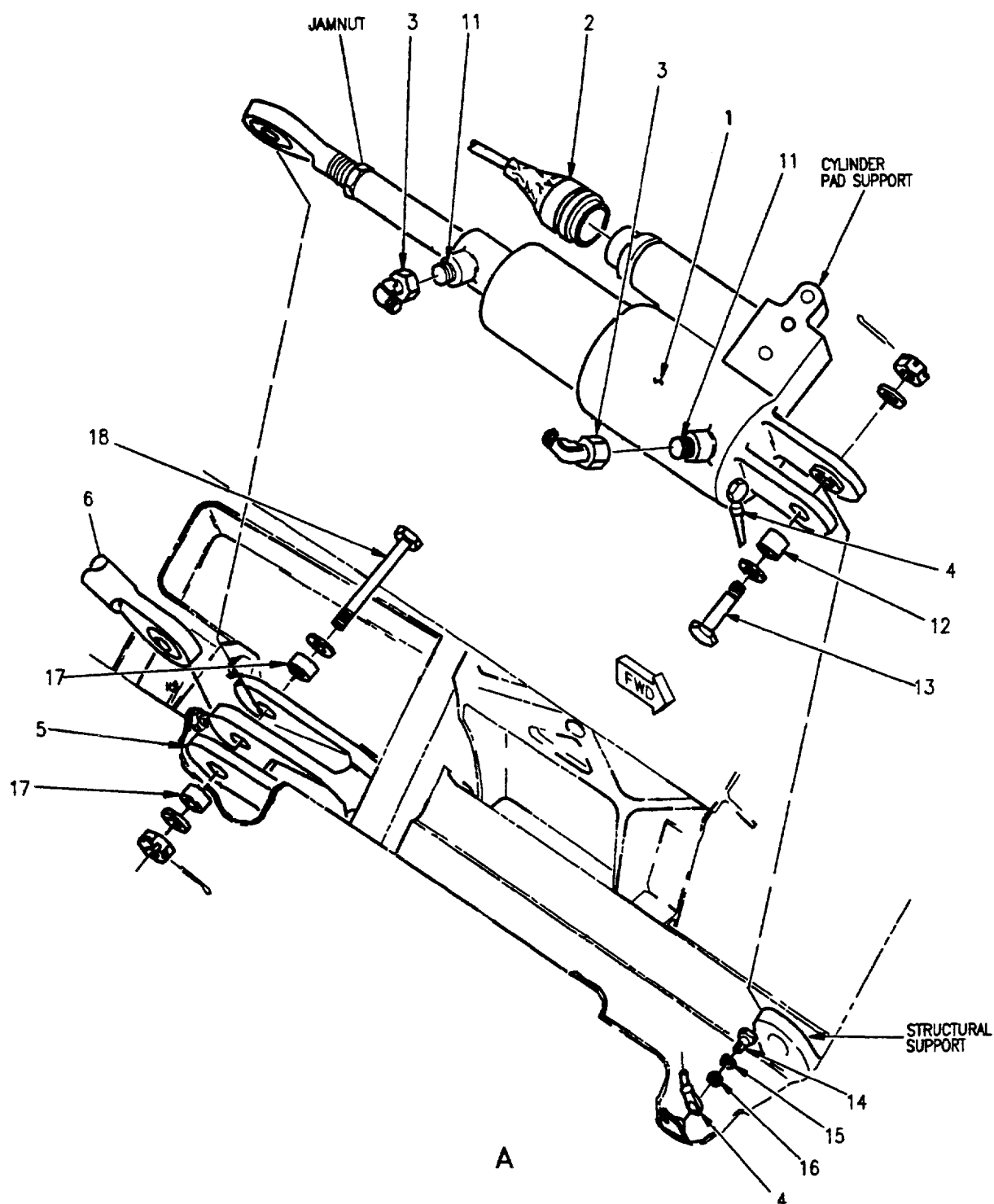


Figure 1. Inflight Refueling Probe Actuating Cylinder (5HPB006) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE									
		ACTUATING CYLINDER (5HPB006)									
1	2-7385-5	.	CYLINDER ASSEMBLY, ACTUATING,						1		PAODD
			LINEAR-IN-FLT RFL PROBE								
			(INFLIGHT REFUELING PROBE								
			ACTUATING CYLINDER) (97415)								
			(MCDONNELL SPEC 74-690129-101)								
			(5HPB006)								
2	MS27467T11B35S	.	CONNECTOR, PLUG (5P-B006)						1		PAOZZ
3	R44126-90T-04	.	ELBOW, TUBE (50599) (MCDONNELL						2	*	PAOZZ
			SPEC ST7M225T4)								
	AE16398-4	.	SEE ABOVE (00624)						2	*	PAOZZ
	AP359T04	.	SEE ABOVE (01673)						2	*	PAOZZ
	TF359T04	.	SEE ABOVE (78750)						2	*	PAOZZ
4	MS25083-5BB6	.	LEAD, ELECTRICAL						1		PAOZZ
5	74A661245-2009	.	BELLCRANK - ACTUATOR, IN-FLIGHT						1		PAOZZ
			REFUEL PROBE (76301)								
6	74A661262-1001	.	CONNECTING LINK, RIGID BELCRK						1		PAOZZ
			A/B- IN-FLT REFUELING								
			PROBE (76301)								
7	74A661260-1001	.	CONNECTING LINK, RIGID-DOOR						1		PAOZZ
			IN-FLT RFL (76301)								
8	HT4024L4D14	.	SCREW, CLOSE TOLERANCE (73197)						1		PAOZZ
			(MCDONNELL SPEC ST3M455-4DL14)								
	AN960C416	.	WASHER (88044) (UNDER NUT)						1		PAOZZ
			(USE WITH INDEX 8)								
	79317CM	.	NUT, SELF-LOCKING, EXTENDED						1	*	PAOZZ
			WASHER HEXAGON,								
			CASTELLATED (56878) (MCDONNELL								
			SPEC ST3M787-4) (USE WITH INDEX 8)								
	E12695-4	.	SEE ABOVE (07083)						1	*	PAOZZ
	MS24665-229	.	PIN, COTTER (96906)						1		PAOZZ
			(USE WITH INDEX 8)								
9	ST4M166-4-003	.	BUSHING, SLEEVE (76301)						1		PAOZZ
10	74A661208-1001	.	LEVER ASSEMBLY - DOOR,						1		XBOGG
			ACTUATOR IFR PROBE (76301)								
11	RF5004-13	.	ADAPTER, STRAIGHT TUBE (83324)						2		PAOZZ
			(MCDONNELL SPEC ST7M200T4)								
	MS28775-010	.	PACKING (96906) (USE WITH INDEX 11)						1		PAOZZ
12	ST4M166-6-005	.	BUSHING, SLEEVE (76301)						1		PAOZZ
13	NAS656V17D	.	BOLT, CLOSE TOLERANCE (80205)						1		PAOZZ
	NAS1587-6C	.	WASHER, RECESSED (80205)						1		PAOZZ
			(UNDER BOLT) (USE WITH								
			INDEX 13)								
	AN960JD616	.	WASHER, FLAT (88044) (UNDER NUT)						1		PAOZZ
			(USE WITH INDEX 13)								
	E10080-6	.	NUT, PLAIN, SLOTTED, HEXAGON,						1	*	PAOZZ
			(72962) (MCDONNELL SPEC								
			ST3M404C6) (USE WITH INDEX 13)								
	74640C6	.	SEE ABOVE (56878)						1	*	PAOZZ
	ST3M404C6	.	SEE ABOVE (92595)						1	*	PAOZZ
	MS24665-302	.	PIN, COTTER (USE WITH INDEX 13)						1		PAOZZ

Figure 1. Inflight Refueling Probe Actuating Cylinder (5HPB006) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
14	NAS673V2	.	BOLT, SHEAR (80205) (AP)	.....					2		PAOZZ
15	MS35338-43	.	WASHER, LOCK (96906) (AP)	.....					2		PAOZZ
16	AN960JD10L	.	WASHER, FLAT (88044) (AP)	.....					2		PAOZZ
17	ST4M166-6-004	.	BUSHING, SLEEVE (76301)	.....					2		PAOZZ
18	NAS6306U26D	.	BOLT, SHEAR (80205)	.....					1		PAOZZ
	AN960C616L	.	WASHER, FLAT (88044)	.....					1		PAOZZ
			(UNDER NUT) (USE WITH INDEX 18)								
	E10080-6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(72962) (MCDONNELL SPEC ST3M404C6) (USE WITH INDEX 18)								
	74640C6	.	SEE ABOVE (56878)	.....					1	*	PAOZZ
	ST3M404C6	.	SEE ABOVE (92595)	.....					1	*	PAOZZ
	MS24665-229	.	PIN, COTTER (USE WITH INDEX 18)	.....					1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Inflight Refueling Probe Actuating Cyclinder (5HPB006) (Sheet 5)

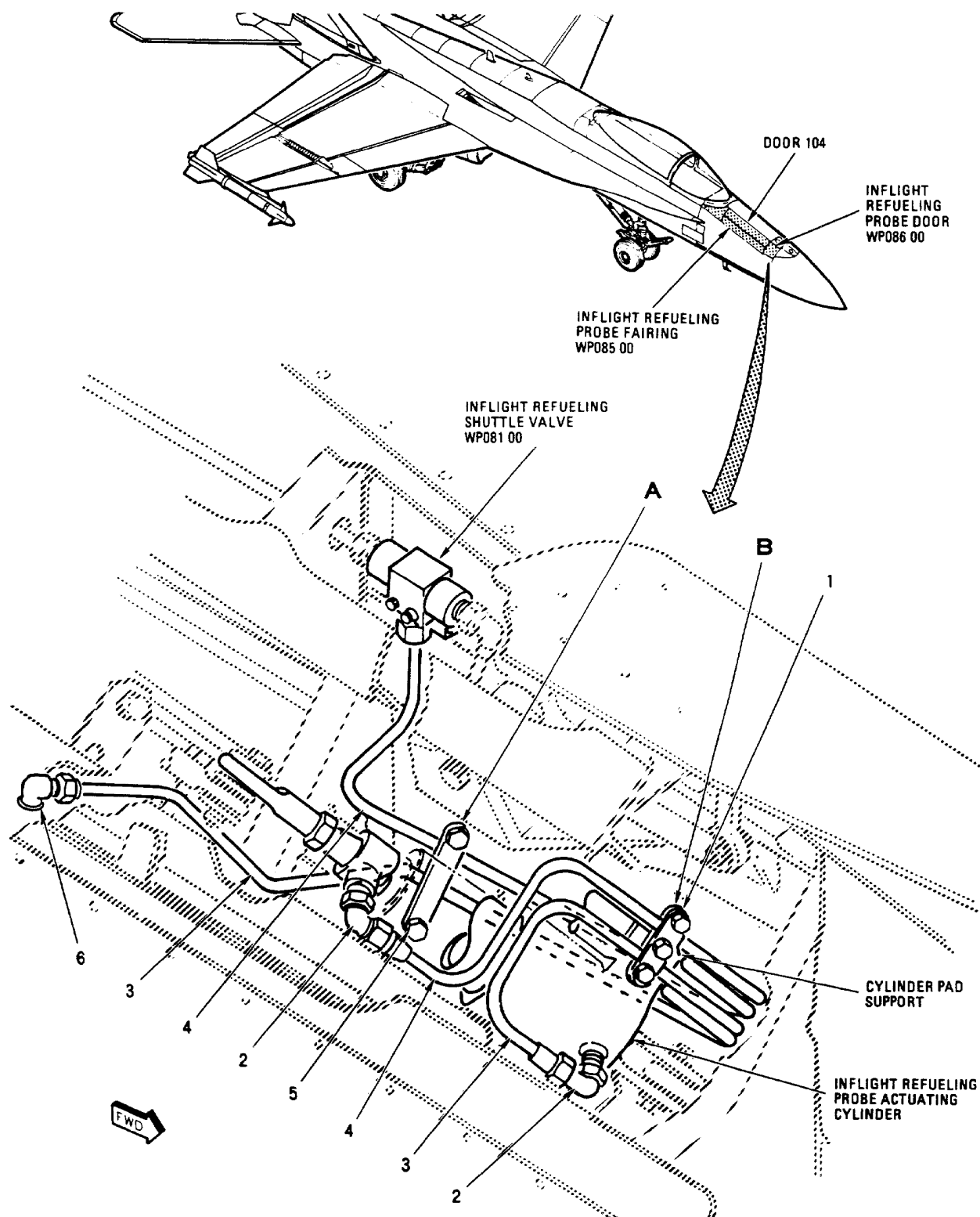


Figure 2. Inflight Refueling Hydraulic Tubes (Sheet 1)

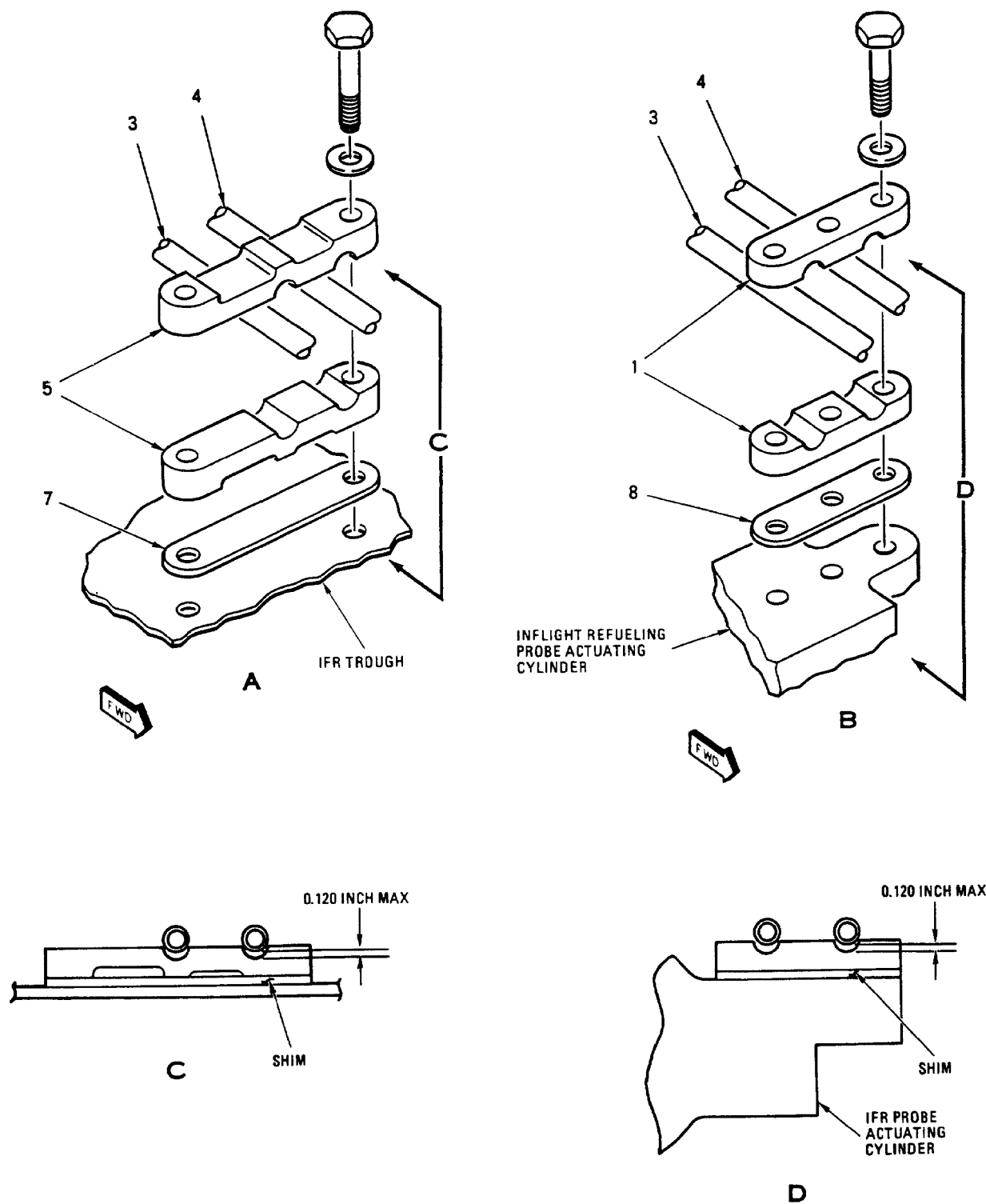


Figure 2. Inflight Refueling Hydraulic Tubes (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING									
		HYDRAULIC TUBES									
1	ST9M591-4	.						BLOCK (76301)	2		PAOZZ
	NAS673V8	.						BOLT (AP)	3		PAOZZ
	AN960JD10L	.						WASHER (AP)	3		PAOZZ
2	R44126-90T-04	.						ELBOW, TUBE (50599) (MCDONNELL	2	*	PAOZZ
								SPEC ST7M225T4)			
	AE16398-4	.						SEE ABOVE (00624)	2	*	PAOZZ
	AP359T04	.						SEE ABOVE (01673)	2	*	PAOZZ
3	74A690610-1009 φ	.						TUBE ASSEMBLY, METAL - COILED,	1		XBOZZ
								IN FLT REFL RETRACT (76301)			
	74A690610-1007 c	.						SEE ABOVE	1	*	XBOZZ
4	74A690609-1007 φ	.						TUBE ASSEMBLY, METAL - COILED,	1		XBOZZ
								IFR EXTEND (76301)			
	74A690609-1005 c	.						TUBE ASSEMBLY, METAL - COILED,	1	*	XBOZZ
								IFR EXTEND (76301)			
5	74A690245-2003	.						BLOCK - TUBE SUPPORT (76301)	2		XBOZZ
	74A690245-2001	.						SEE ABOVE	2	A*	XBOZZ
	NAS673V11	.						BOLT (AP)	2		PAOZZ
	AN960JD10L	.						WASHER (AP)	2		PAOZZ
6	R44360T-04	.						ELBOW, TUBE (50599) (MCDONNELL	1	*	PAOZZ
								SPEC ST7M209T4)			
	AE16340-4	.						SEE ABOVE (00624)	1	*	PAOZZ
	AP341T04	.						SEE ABOVE (01673)	1	*	PAOZZ
	TF341T04	.						SEE ABOVE (78570)	1	*	PAOZZ
7	74A690226-2005	.						SHIM - TUBE ASSY (76301)	AR		MGOZZ
	74A690226-2003	.						SHIM - TUBE ASSY (76301)	AR	A*	MGOZZ
8	ST9M595-2-4	.						SHIM (76301)	AR		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

c THESE PARTS WHEN REMOVED
TOGETHER MAY BE REPLACED
BY PARTS CODED φ.

φ THESE PARTS WHEN REMOVED
TOGETHER REPLACE PARTS
CODED c

CODE	USABLE ON	MODEL
A	161353 THRU 161359	F/A-18A, TF/A-18A

Figure 2. Inflight Refueling Hydraulic Tubes (Sheet 3)

**ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING DIRECTIONAL CONTROL VALVE
(5L-B007)
INFLIGHT REFUELING SYSTEM**

Reference Material

Line Maintenance Access Doors A1-F18AC-LMM-010
 Line Maintenance Procedures A1-F18AC-LMM-000
 Plane Captain Manual A1-F18AC-PCM-000

Alphabetical Index

Subject	Page No.
Inflight Refueling Directional Control Valve, Figure 1	3
Illustrated Parts Breakdown	2
Illustration	3
Parts List	5
Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-

Materials Required

None

1. REMOVAL.

a. Apply external electrical and hydraulic power (A1-F18AC-LMM-000).

b. On cockpit FUEL system control panel, set PROBE control switch to EXTEND (figure 1). If probe does not extend, do substeps below, as applicable:

(1) On 161353 THRU 161528 BEFORE F18 AFC 41, on cockpit FUEL system control panel, set PROBE control switch to EMERGENCY EXTEND.

(2) On 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 41 on cockpit FUEL system control panel, set PROBE control switch to EMERG EXTD.

c. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

d. Install probe ground safety lock (A1-F18AC-PCM-000).

e. Deplete APU accumulator (A1-F18AC-PCM-000).

f. Remove door 104 (A1-F18AC-LMM-010).

g. Disconnect connector (12) from valve (1).



Titanium alloy lines will break if excessively flexed or twisted during component removal or installation.

h. Disconnect tubes (7 and 8) from valve (1).

i. Disconnect tubes (2, 10, and 13) from elbows (3, 11, and 14).

j. Remove bolts (5), washers (6), and valve (1).

k. Remove elbows (3, 11, and 14) from valve (1).

l. If required, adapters (4 and 9) and packings may be replaced per NAVAIR 01-1A-15.

2. INSTALLATION.

a. Make sure electrical and hydraulic power are off (A1-F18AC-LMM-000).

b. Install elbows (3, 11, and 14, figure 1) on valve (1).

c. Prepare mating surfaces of valve, structure and attaching parts for electrical bonding (A1-F18AC-LMM-000).

d. Position valve (1) in aircraft.

e. Install bolts (5) and washers (6).



Titanium alloy lines will break if excessively flexed or twisted during component removal or installation.

f. Connect tubes (7 and 8) to valve (1).

g. Connect tubes (2, 10, and 13) to elbows (3, 11, and 14).

h. Connect connector (12) to valve (1).

i. Remove probe ground safety lock (A1-F18AC-PCM-000).

j. Apply external hydraulic power to hydraulic system 2, with test stand reservoir selector valve in TEST STAND RESERVOIR position (A1-F18AC-LMM-000).

k. Apply external electrical power (A1-F18AC-LMM-000).

l. Do substeps below:

(1) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

(2) On 161353 THRU 161528 BEFORE F18 AFC 41 set PROBE control switch to EMERGENCY EXTEND.

(3) On 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 41 set probe control switch to EMERG EXTD.

(4) Repeat substeps (1) and (2 or 3) four times.

(5) Set PROBE control switch to RETRACT.

(6) Set PROBE control switch to EXTEND.

(7) Repeat substeps (5 and 6) four times.

(8) Set PROBE control switch to RETRACT.

m. Inspect valve (1) area for leaks.

n. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

o. Service hydraulic system 2 reservoir (A1-F18AC-PCM-000).

p. Install door 104 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

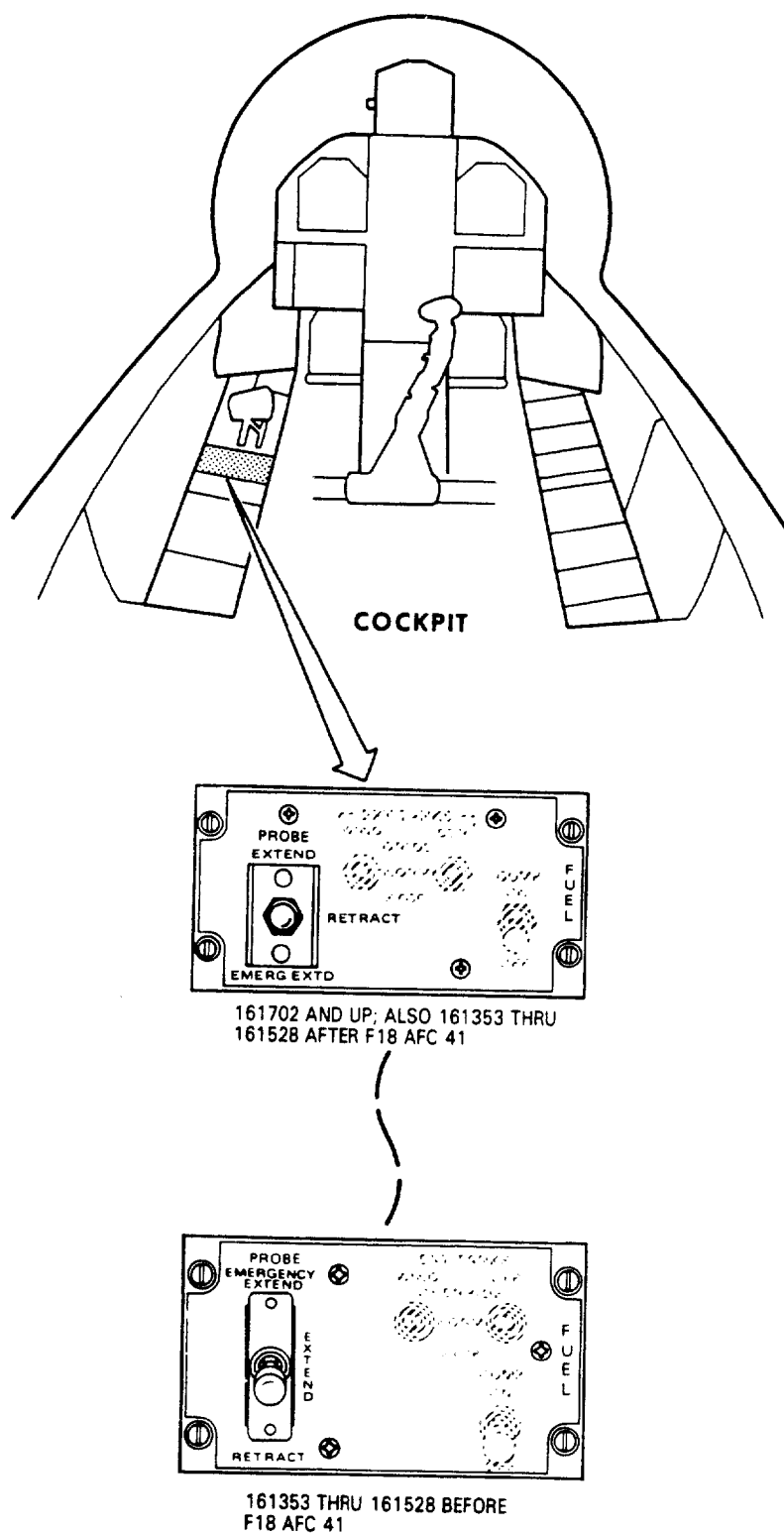


Figure 1. Inflight Refueling Directional Control Valve (5L-B007) (Sheet 1)

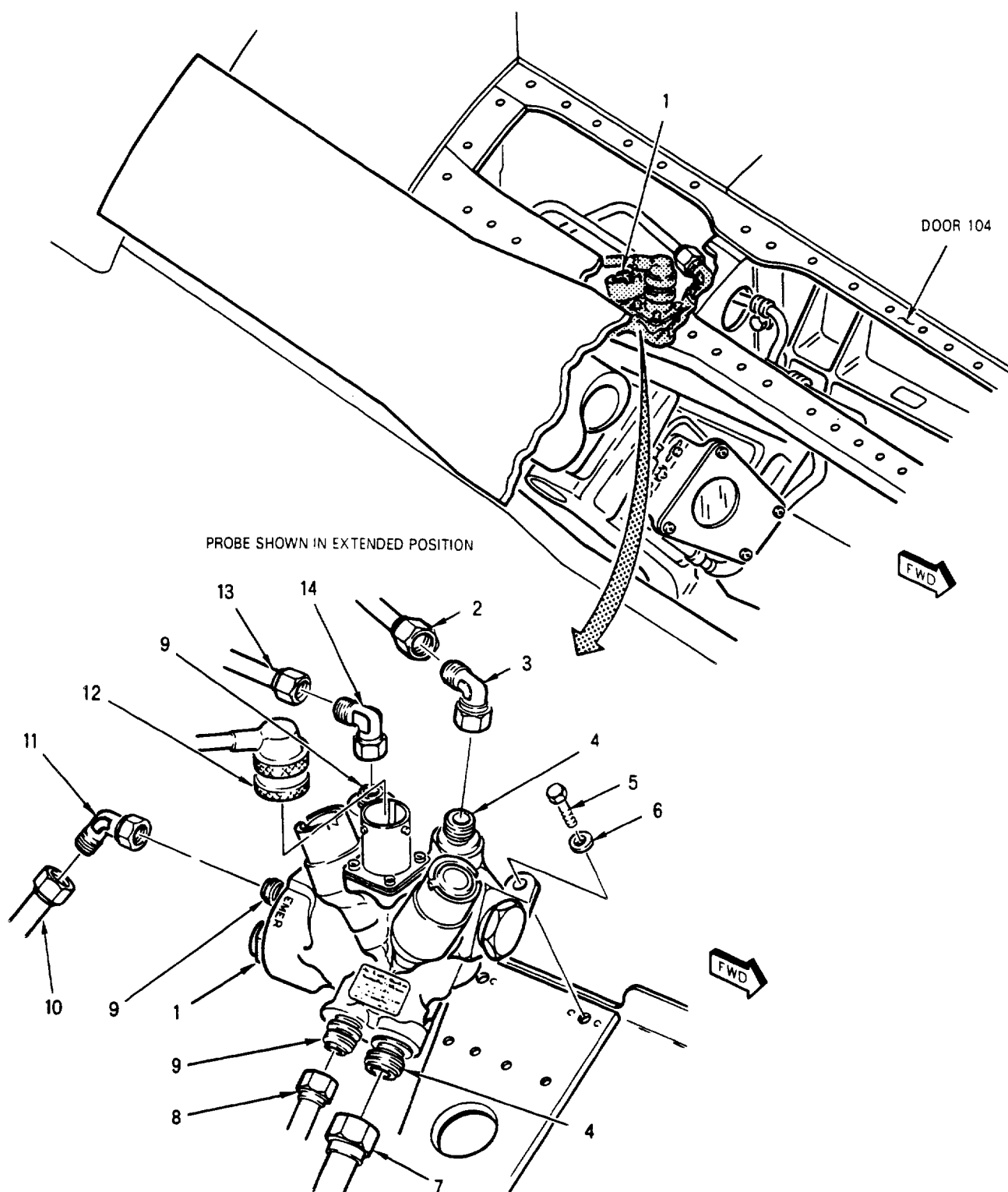


Figure 1. Inflight Refueling Directional Control Valve (5L-B007) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		INFLIGHT REFUELING DIRECTIONAL								
		CONTROL VALVE (5L-8007)								
1	MC14432-2	.	VALVE, LINEAR DIRECTIONAL -					1		PAOZZ
			CONTROL - IN-FLT REFUEL							
			(INFLIGHT REFUELING							
			DIRECTIONAL CONTROL VALVE)							
			(76050) (MCDONNELL SPEC							
			74-690123-101) (5L-B007)							
2	74A690979-1003	.	TUBE ASSEMBLY, METAL - 2A					1		MGOZZ
			RETURN, Y177.875 (76301)							
3	R44126-90T-06	.	ELBOW, TUBE (50599) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M225T6)							
	AE16398-6	.	SEE ABOVE (00624)					1	*	PAOZZ
	AP359T06	.	SEE ABOVE (01673)					1	*	PAOZZ
4	RF5006-13	.	ADAPTER, STRAIGHT TUBE (83324)					2		PAOZZ
			(MCDONNELL SPEC ST7M200T6)							
	MS28775-012	.	PACKING (USE WITH INDEX 4)					2		PAOZZ
5	NAS674V5	.	BOLT					3		PAOZZ
6	NAS1252-416L	.	WASHER					3		PAOZZ
7	74A690900-1001	.	TUBE ASSEMBLY, METAL - PROBE IN,					1		MGOZZ
			Y173.216 (76301)							
8	74A690977-1003	.	TUBE ASSEMBLY, METAL - PROBE OUT,					1		MGOZZ
			Y174.321 (76301)							
9	RF5004-13	.	ADAPTER, STRAIGHT, TUBE (83324)					3		PAOZZ
			(MCDONNELL SPEC ST7M200T4)							
	MS28775-010	.	PACKING (USE WITH INDEX 9)					3		PAOZZ
10	74A690976-1001	.	TUBE ASSEMBLY, METAL - EMERG					1		MGOZZ
			PROBE OUT, Y179.744 (76301)							
11	R44129-60T-04	.	ELBOW, TUBE (50599) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M224T4)							
	AE16400-4	.	SEE ABOVE (00624)					1	*	PAOZZ
	AP331T04	.	SEE ABOVE (01673)					1	*	PAOZZ
	TF331T04	.	SEE ABOVE (78570)					1	*	PAOZZ
12	MS27467T13B98S	.	CONNECTOR, PLUG (5P-B007)					1		PAOZZ
13	74A690975-1003	.	TUBE ASSEMBLY, METAL - 2A PRESS,					1		MGOZZ
			Y179.240 (76301)							
14	R44126-90T-04	.	ELBOW, TUBE (MCDONNELL					1	*	PAOZZ
			SPEC ST7M225T4)							
	AE16398-4	.	ELBOW, TUBE (00624) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M225T4)							
	AP359T04	.	ELBOW, TUBE (01673) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M225T4)							
* ALTERNATE OR EQUIVALENT										
PARTS. (WP002 00)										

Figure 1. Inflight Refueling Directional Control Valve (5L-B007) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING HYDRAULIC CHECK VALVE
(5VAC646)
INFLIGHT REFUELING SYSTEM

Reference Material

Line Maintenance Access Doors A1-F18AC-LMM-010
Line Maintenance Procedures A1-F18AC-LMM-000
Plane Captain Manual A1-F18AC-PCM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Materials Required

Nomenclature **Part Number or
Type Designation**

None

External Electrical -
Power Source

External Hydraulic -
Power Source

1. REMOVAL.

a. Make sure hydraulic and electrical power are
off (A1-F18AC-LMM-000).

b. Deplete APU accumulator (A1-F18AC-PCM-
000).



Titanium alloy lines will break if excessively flexed or twisted during component removal or installation.

c. Disconnect elbow (2 figure 1) from check valve (3).

d. Remove check valve (3) from elbow (4).

2. INSTALLATION.

a. Install check valve (3, figure 1) on elbow (4).



Titanium alloy lines will break if excessively flexed or twisted during component removal or installation.

b. Connect elbow (2) to check valve (3).

c. Apply external hydraulic power to hydraulic system 2, with test stand reservoir selector valve in TEST STAND RESERVOIR position (A1-F18AC-LMM-000).

d. Apply external electrical power (A1-F18AC-LMM-000).

e. Do substeps below:

(1) On 161353 THRU 161528 BEFORE F18 AFC 41, on cockpit FUEL system control panel, set PROBE control switch to EMERGENCY EXTEND.

(2) On 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 41, on cockpit FUEL system control panel, set PROBE control switch to EMERG EXTND.

(3) Set PROBE control switch to RETRACT.

(4) Repeat substeps (1) or (2) and (3) four times.

(5) Set PROBE control switch to RETRACT.

(6) Set PROBE control switch to EXTEND.

(7) Repeat substeps (5) and (6) four times.

(8) Set Probe control switch to RETRACT.

f. Inspect valve (3) area for leaks.

g. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

h. Service hydraulic system 2 reservoir (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

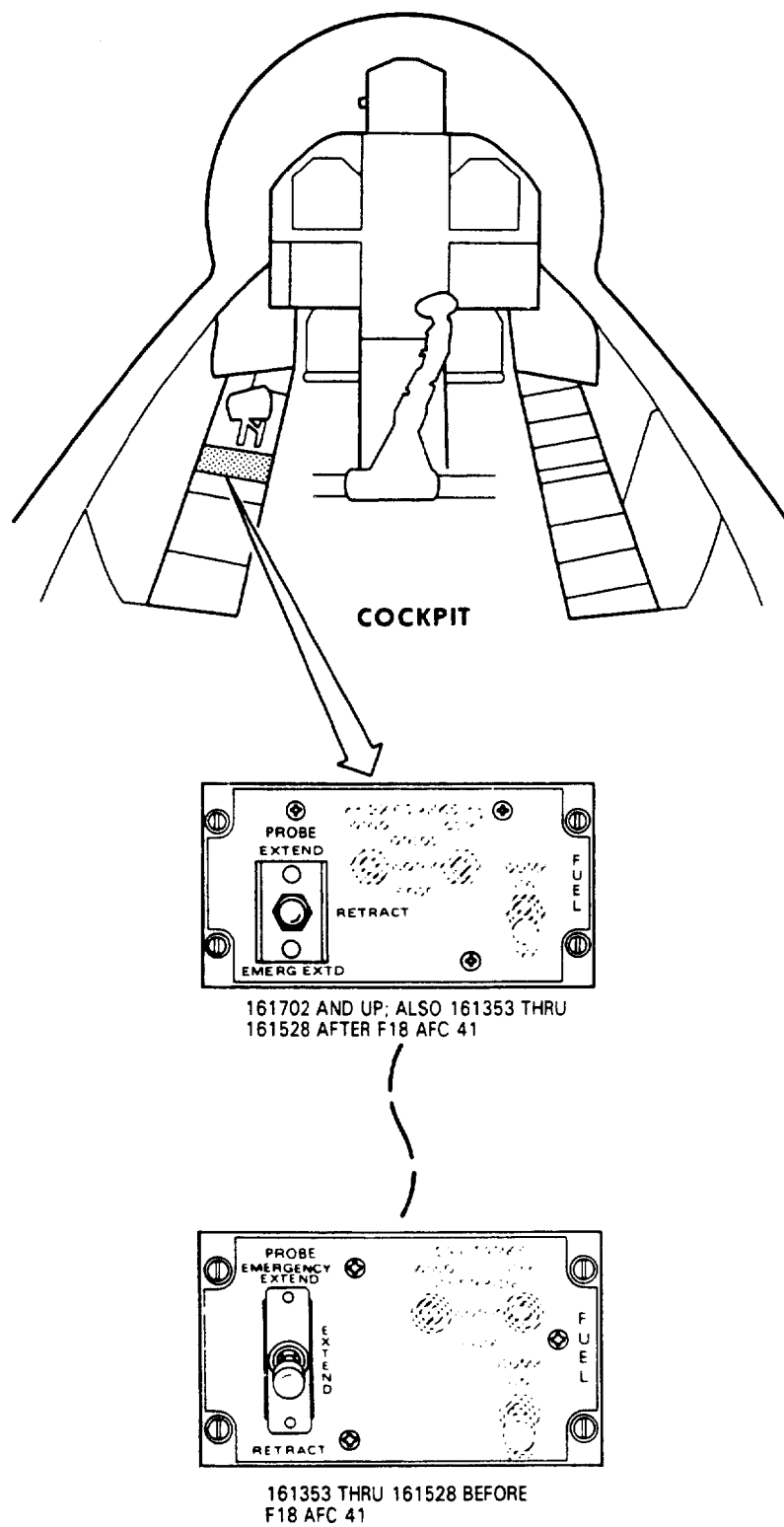


Figure 1. Inflight Refueling Hydraulic Check Valve (5VAC646) (Sheet 1)

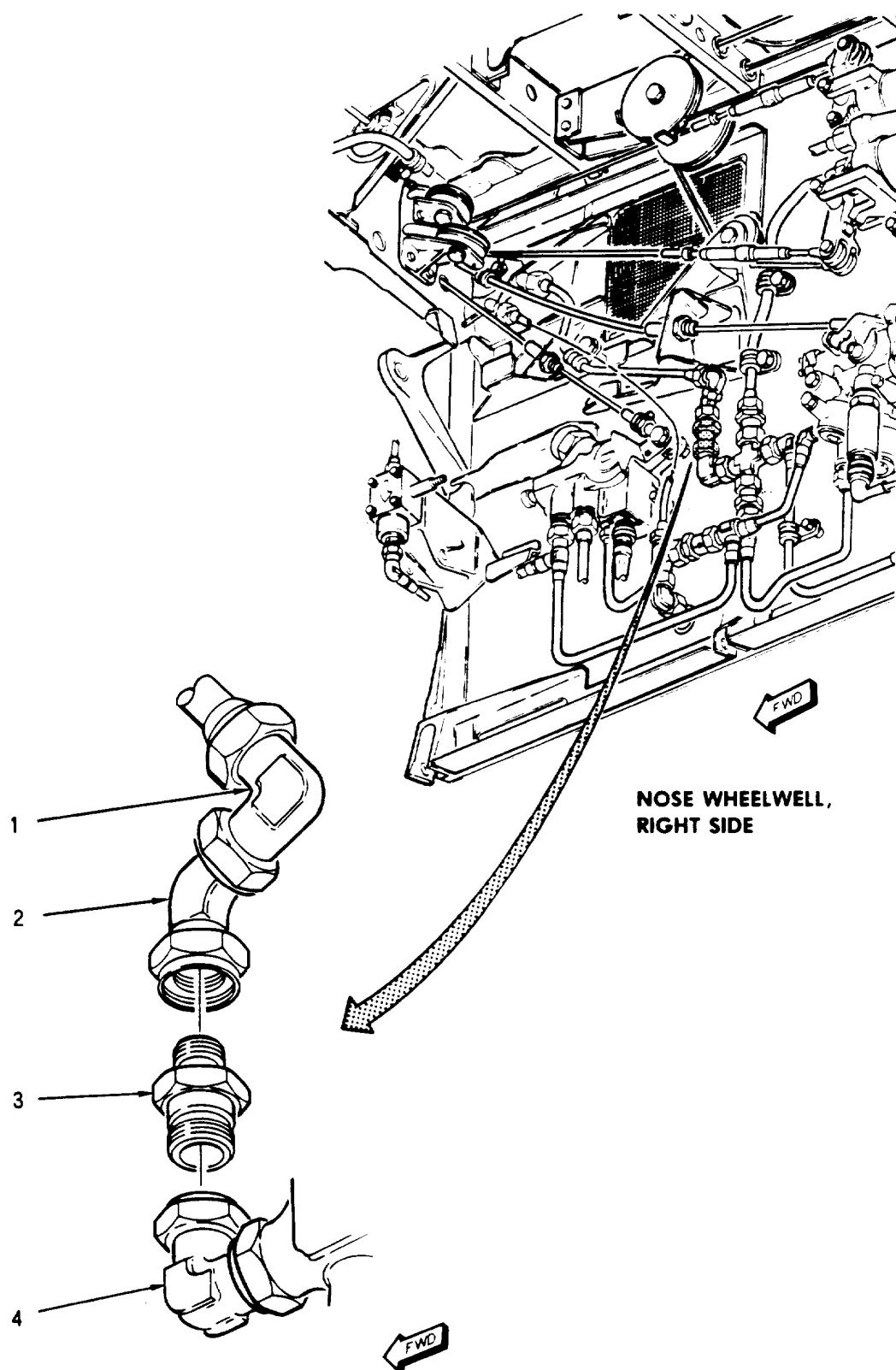


Figure 1. Inflight Refueling Hydraulic Check Valve (5VAC646) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		INFLIGHT REFUELING HYDRAULIC								
		CHECK VALVE (5VAC646)								
1	R44126-90T-04	.	ELBOW, TUBE (50599) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M225T4)							
	AE16398-4	.	SEE ABOVE (00624)					1	*	PAOZZ
	AP359T04	.	SEE ABOVE (016731)					1	*	PAOZZ
	TF359T04	.	SEE ABOVE (78570)					1	*	PAOZZ
2	R44129-60T-04	.	ELBOW, TUBE (50599) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M224T4)							
	AE16400-4	.	SEE ABOVE (00624)					1	*	PAOZZ
	AP331T04	.	SEE ABOVE (01673)					1	*	PAOZZ
	TF331T04	.	SEE ABOVE (78570)					1	*	PAOZZ
3	4C2640-3	.	VALVE, CHECK (INFLIGHT)					1		PAOZZ
			REFUELING HYDRAULIC CHECK							
			VALVE) (99240) (MCDONNELL							
			SPEC ST7M262-4) (5VAC646)							
4	R44126-90T-06	.	ELBOW, TUBE (50599) (MCDONNELL					1	*	PAOZZ
			SPEC ST7M225T6)							
	AE16398-6	.	SEE ABOVE (00624)					1	*	PAOZZ
	AP359T06	.	SEE ABOVE (01673)					1	*	PAOZZ
	TF359T06	.	SEE ABOVE (78570)					1	*	PAOZZ
* ALTERNATE OR EQUIVALENT										
PARTS. (WP002 00)										

Figure 1. Inflight Refueling Hydraulic Check Valve (5VAC646) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EMERGENCY INFLIGHT REFUELING
DIRECTIONAL CONTROL VALVE
(5L-D009)
INFLIGHT REFUELING SYSTEM

Reference Material

Line Maintenance Access Doors A1-F18AC-LMM-010
 Line Maintenance Procedures A1-F18AC-LMM-000
 Plane Captain Manual A1-F18AC-PCM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remark
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-

Materials Required

None

1. REMOVAL.

- a. Make sure hydraulic and electrical power are off (A1-F18AC-LMM-000).
- b. Deplete APU accumulator (A1-F18AC-PCM- 000).

c. Remove internal door NWC (A1-F18AC-LMM-010).

d. Disconnect connector (7 figure 1) from valve (1).



Titanium alloy lines will break if excessively flexed or twisted during component removal or installation.

e. Disconnect elbows (3 and 5) from valve (1).

f. Remove bolts (2), washers, and valve (1).

g. If applicable, remove and replace adapters (4 and 6) and packings (NAVAIR 01-1A-15).

2. INSTALLATION.

a. Make sure hydraulic and electrical power are not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of valve (1, figure 1) and bracket for electrical bonding at one leg (A1-F18AC-LMM-000).

c. Install valve (1), bolts (2) and washers.



Titanium alloy lines will break if excessively flexed or twisted during component removal or installation.

d. Connect elbows (3 and 5) to valve (1).

e. Connect connector (7) to valve (1).

f. Apply external hydraulic power to hydraulic system 2, with test stand reservoir selector valve in

TEST STAND RESERVOIR position (A1-F18AC-LMM-000).

g. Apply external electrical power (A1-F18AC-LMM-000).

h. Do substeps below:

(1) On 161353 THRU 161528 BEFORE F18 AFC 41 on cockpit FUEL system control panel (sheet 4), set PROBE control switch to EMERGENCY EXTEND.

(2) On 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 41, on cockpit FUEL system control panel (sheet 4), set PROBE control switch to EMERG EXTND.

(3) Set PROBE control switch to RETRACT.

(4) Repeat substeps (1) or (2) and (3) four times.

(5) Set PROBE control switch to EXTEND (figure 1).

(6) Set PROBE control switch to RETRACT.

(7) Repeat substeps (5) and (6) four times.

i. Inspect valve (1) area for leaks.

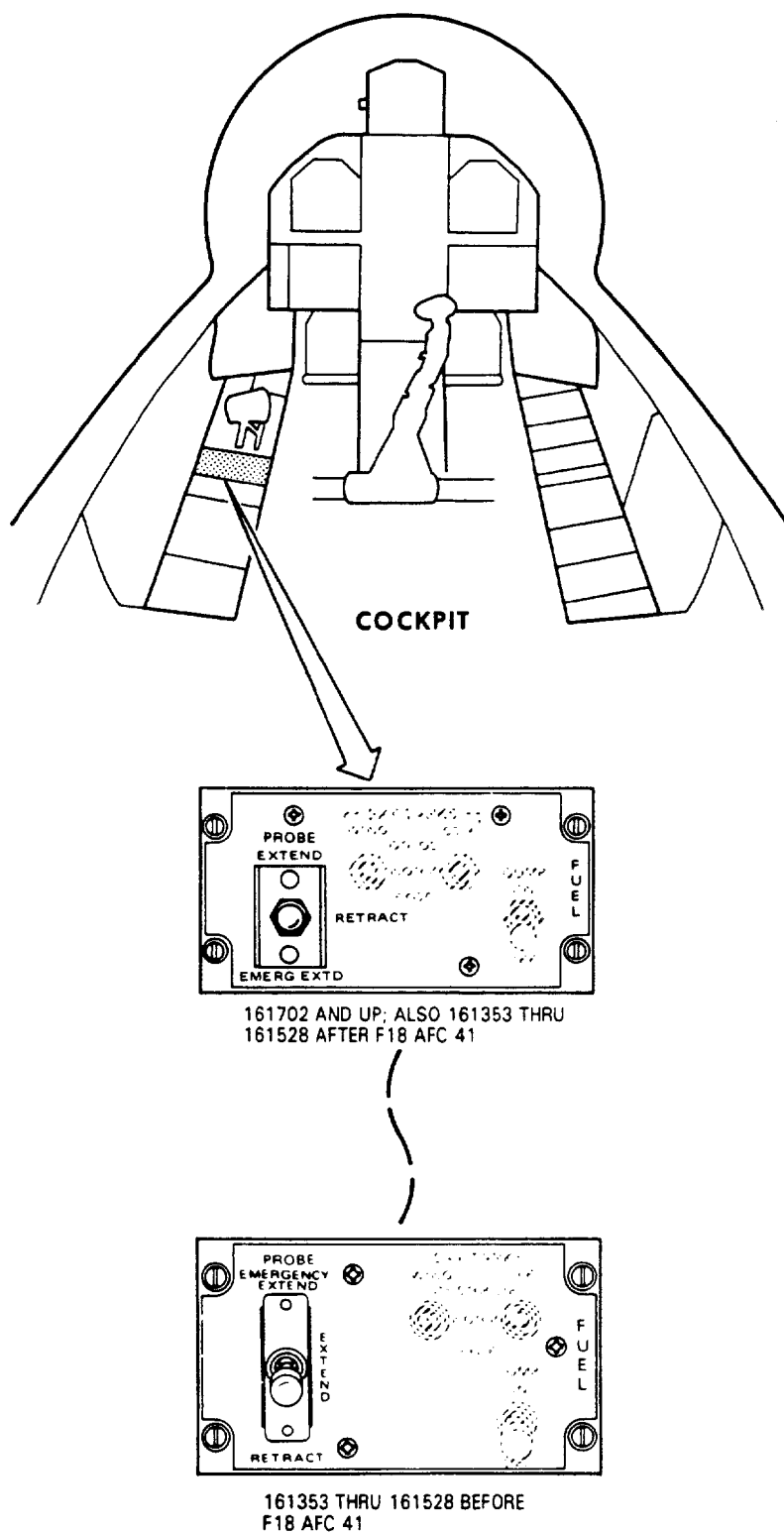
j. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

k. Service hydraulic system 2 reservoir (A1-F18AC-PCM-000).

l. Install internal door NWC (A1-F18AC-LMM-010).

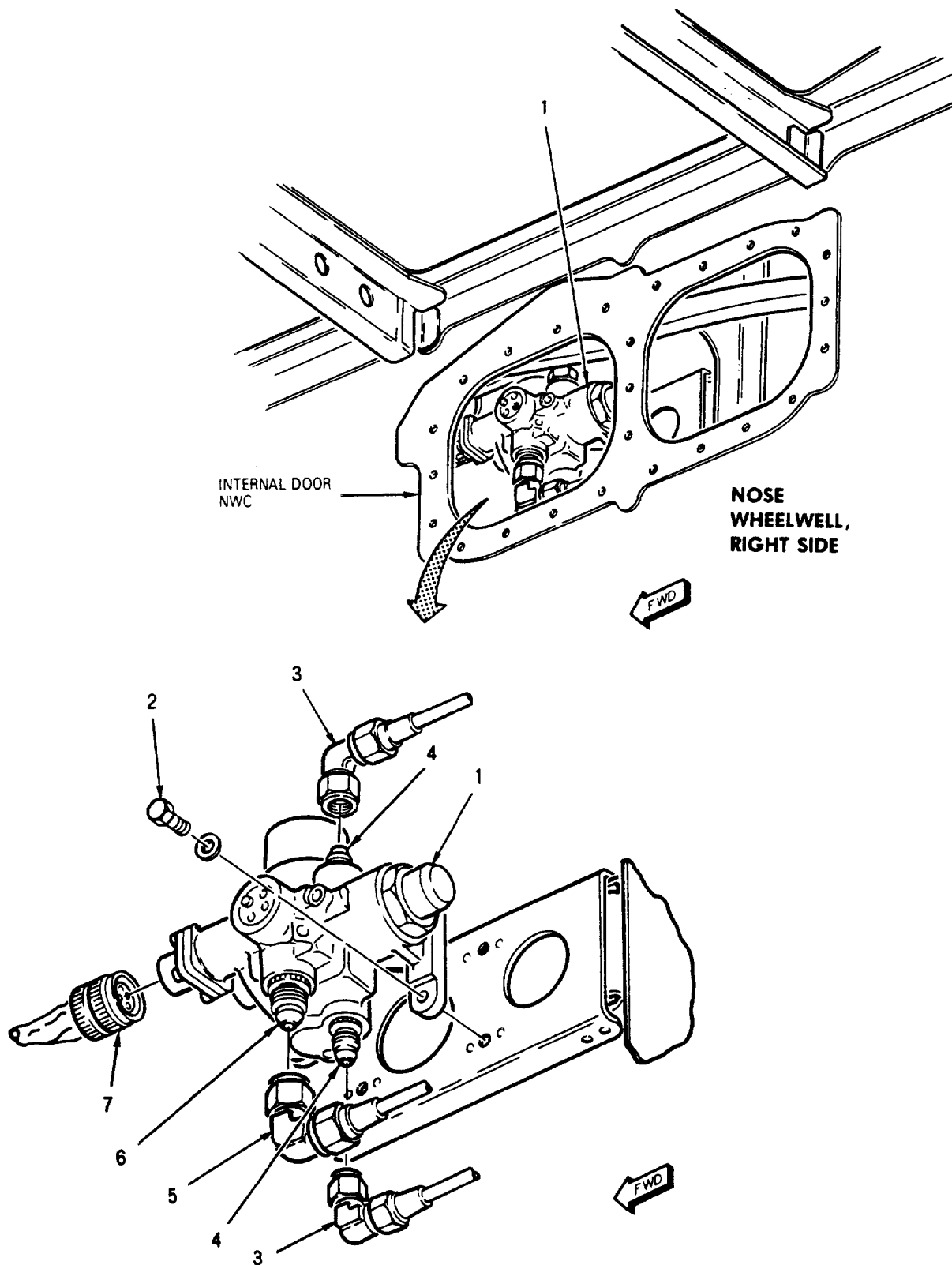
3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



08000101

Figure 1. Emergency Inflight Refueling Directional Control Valve (5L-D009) (Sheet 1)



08000102

Figure 1. Emergency Inflight Refueling Directional Control Valve (5L-D009) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EMERGENCY INFLIGHT REFUELING									
		DIRECTIONAL CONTROL VALVE									
		(5L-D009)									
1	240215-2	.	VALVE, LINEAR, DIRECTIONAL						1		PAOGG
			CONTROL - EMER IFR/NOSE								
			STRG (EMERGENCY INFLIGHT								
			REFUELING DIRECTIONAL CONTROL								
			VALVE) (79318) (MCDONNELL								
			SPEC 74-690125-101) (5L-D009)								
2	NAS673V5	.	BOLT						3		PAOZZ
	AN960JD10L	.	WASHER (AP)						3		PAOZZ
	MS21060L4	.	NUT, PLATE (USE WITH INDEX 2)						3		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
3	R44126-90T-04	.	ELBOW, TUBE (50599) (MCDONNELL						2	*	PAOZZ
			SPEC ST7M225T4)								
	AE16398-4	.	SEE ABOVE (00625)						2	*	PAOZZ
	AP359T04	.	SEE ABOVE (01673)						2	*	PAOZZ
4	RF5004-13	.	ADAPTER, STRAIGHT, TUBE (83324)						2		PAOZZ
			(MCDONNELL SPEC ST7M200T4)								
5	R44126-90T-06	.	ELBOW, TUBE (50599) (MCDONNELL						1	*	PAOZZ
			SPEC ST7M225T6)								
	AE16398-6	.	SEE ABOVE (00625)						1	*	PAOZZ
	AP359T06	.	SEE ABOVE (01673)						1	*	PAOZZ
6	RF5006-13	.	ADAPTER, STRAIGHT, TUBE (83324)						1		PAOZZ
			(MCDONNELL SPEC ST7M200T6)								
7	MS27467T9B35S	.	CONNECTOR, PLUG (5P-D009)						1		PAOZZ
* ALTERNATE OR EQUIVALENT											
PARTS. (WP002 00)											
# LENGTH/SIZE TO BE DETERMINED											
AT INSTALLATION											

Figure 1. Emergency Inflight Refueling Directional Control Valve (5L-D009) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE SHUTTLE VALVE
(5VAB572)
INFLIGHT REFUELING SYSTEM

Reference Material

Line Maintenance Access Doors A1-F18AC-LMM-010
Line Maintenance Procedures A1-F18AC-LMM-000
Plane Captain Manual A1-F18AC-PCM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-

Materials Required

None

1. REMOVAL.

- a. Remove hydraulic and electrical power (A1-F18AC-LMM-000).
- b. Dump APU accumulator (A1-F18AC-PCM-000).
- c. Remove door 104 (A1-F18AC-LMM-010).



Titanium alloy lines will break if excessively flexed or twisted during removal or installation.

d. Disconnect tubes (1 and 5 figure 1) and elbow (4) from valve (3).

e. Remove valve (3) and attaching parts.

f. If applicable, replace adapters (2) and packings per NAVAIR 01-1A-15.

2. INSTALLATION.

a. Install valve (3, figure 1) and attaching parts.



Titanium alloy lines will break if excessively flexed or twisted during removal or installation.

b. Connect tubes (1 and 5) and elbow (4) to valve (3).

c. Apply external hydraulic power to hydraulic system 2, with test stand reservoir selector valve in TEST STAND RESERVOIR position (A1-F18AC-LMM-000).

d. Apply external electrical power (A1-F18AC-LMM-000).



To prevent damage to aircraft, make sure probe area is clear before extending probe.

e. Do substeps below:

(1) On 161353 THRU 161528 BEFORE F18 AFC 41 on cockpit FUEL system control panel set PROBE control switch to EMERGENCY EXTEND, (figure 1).

(2) On 161702 AND UP, ALSO 161353 THRU 161528 AFTER F18 AFC 41 on cockpit FUEL system control panel, set PROBE control switch to EMERG EXTND.

(3) Set PROBE control switch to RETRACT.

(4) Repeat substeps (1) or (2) and (3) four times.

(5) Set PROBE control switch to EXTEND.

(6) Set PROBE control switch to RETRACT.

(7) Repeat substeps (5) and (6) four times.

f. Inspect valve (3) area for leaks.

g. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

h. Service hydraulic system 2 reservoir (A1-F18AC-PCM-000).

i. Install door 104 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

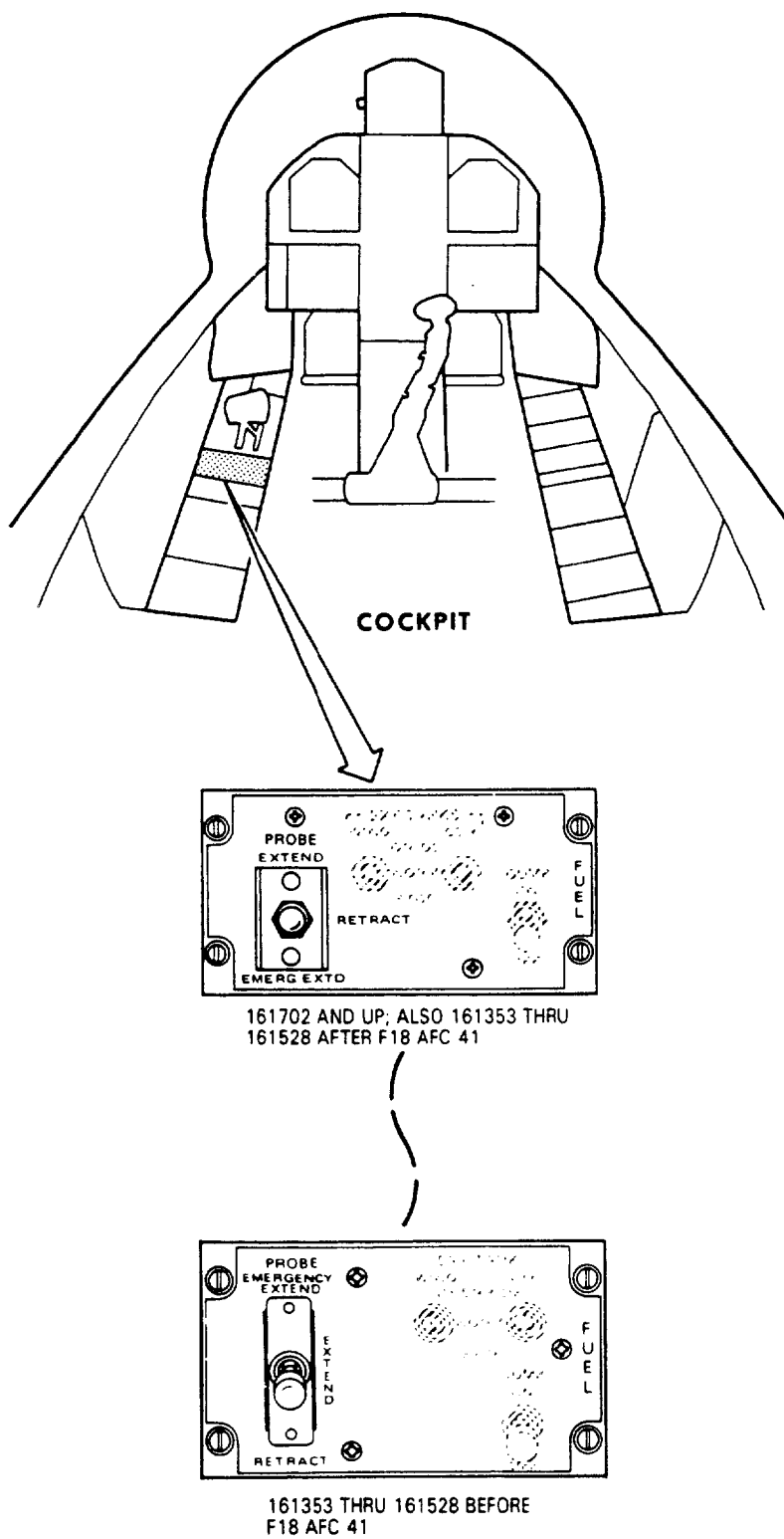


Figure 1. Inflight Refueling Probe Shuttle Valve (5VAB572) (Sheet 1)

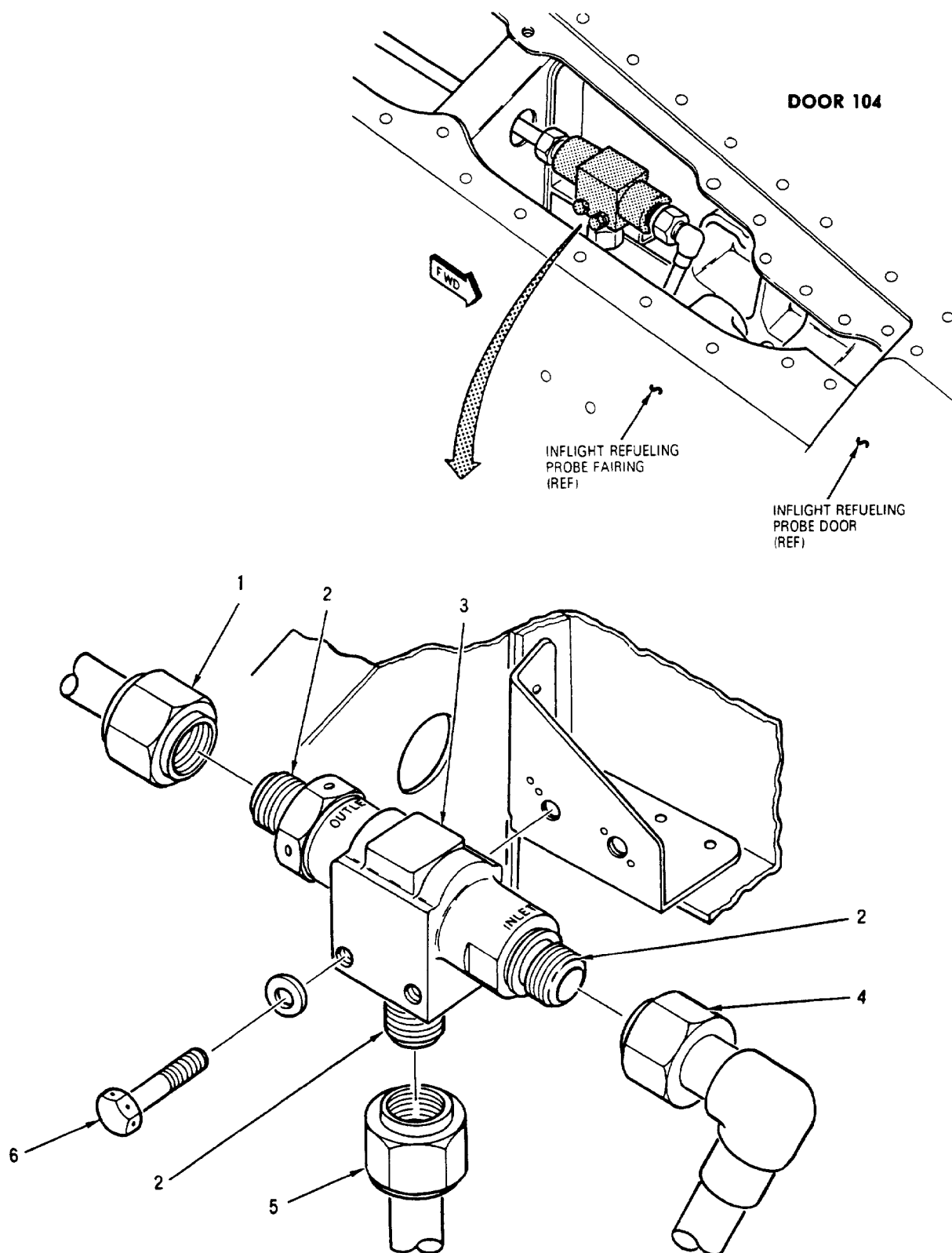


Figure 1. Inflight Refueling Probe Shuttle Valve (5VAB572) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE									
		SHUTTLE VALVE (5VAB572)									
1	74A690810-1003	.	TUBE ASSEMBLY, METAL, EMERG	.					1		MGOZZ
			PROBE OUT, Y167.107 (76301)								
			(SUPERSEDES 74A690810-1001)								
2	RF5004-13	.	ADAPTER, STRAIGHT, TUBE (83324)	.					3		PAOZZ
			(MCDONNELL SPEC ST7M200T4)								
	MS28775-010	.	PACKING (USE WITH INDEX 2)	.					3		PAOZZ
3	5077	.	VALVE, SHUTTLE - HYDRAULIC	.					1		PAOOO
			(INFLIGHT REFUELING PROBE								
			SHUTTLE VALVE) (06177)								
			(MCDONNELL SPEC								
			74-690139-101) (5VAB572)								
4	D11009P04	.	ELBOW, TUBE (14798) (MCDONNELL	.					1		PAOZZ
			SPEC ST7M432-4)								
5	74A690609-1007 ϕ	.	TUBE ASSEMBLY, METAL-COILED,	.					1		XBOZZ
			IFR EXTEND (76301) (SUPERSEDES								
			74A690609-1005)								
6	NAS673V17	.	BOLT	.					2		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 6)	.					2		PAOZZ
		ϕ 74A690609-1007 AND									
		74A690610-1009 MAY BE									
		USED FOR 74A690610-1007									
		INTERCHANGEABLY BY SETS ONLY .									

Figure 1. Inflight Refueling Probe Shuttle Valve (5VAB572) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE RETRACT LIMIT SWITCH
(5S-B010)
INFLIGHT REFUELING SYSTEM
This WP supersedes WP082 00, dated 15 August 1989.

Reference Material

Line Maintenance Access Doors A-F18AC-LMM-010
 Line Maintenance Procedures A-F18AC-LMM-000
 Plane Captain Manual A-F18AC-PCM-000
 Wiring Repair With Parts Data, General Wiring Repair Procedures A-F18AC-WRM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F/A-18- 00054C1)	15 Oct 86	-

Support Equipment Required

NOTE

Alternate item type designations or part numbers
are listed in parentheses.

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-
Multimeter	77AN (260-6XLP)

Materials Required

Nomenclature	Specification or Part Number
Wire, Safety Nonelectrical	MS20995NC32 (CAGE 96906)

1. REMOVAL.

a. Apply external hydraulic and external electrical
power (A-F18AC-LMM-000).

b. On cockpit FUEL system control panel (figure
1), set PROBE control switch to EXTEND.

c. Remove external hydraulic and external electrical power (A-F18AC-LMM-000).

d. Install probe ground safety lock (A-F18AC-PCM-000).

e. Remove door 104 (A-F18AC-LMM-010).

f. Remove clamp (2, figure 1) and attaching parts.

g. Remove clamps (3 and 4) and attaching parts.

h. Disconnect switch wires identified at wire splice WTB002 (A-F18AC-WRM-000).

i. Remove lockwire, nuts, lockwasher, keywasher, and switch (8).

2. INSTALLATION.

a. Install switch (8, figure 1, detail A) with keywasher, lockwasher and nuts in maximum aft position.

b. Connect switch wires at WTB002 splice (A-F18AC-WRM-000) and route wire bundle through clamps (2, 3, and 4). Do not cover splice.

c. Remove probe ground safety lock (A-F18AC-PCM-000).

d. Apply external hydraulic and external electrical power (A-F18AC-LMM-000).

e. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

f. Remove external hydraulic and external electrical power (A-F18AC-LMM-000).

g. Working through door 104, check for continuity between brown and orange wires.

h. If continuity exists, do substeps 1 thru 5 then continue procedure. If continuity does not exist, do substeps 1 thru 9.

(1) Apply external hydraulic and external electrical power (A-F18AC-LMM-000).

(2) Set PROBE control switch to EXTEND.

(3) Turn off external hydraulic and external electrical power (A-F18AC-LMM-000).

(4) Install probe ground safety lock (A-F18AC-PCM-000).

(5) Advance switch (8) one turn.

(6) Remove probe ground safety lock (A-F18AC-PCM-000).

(7) Turn on external hydraulic and external electrical power (A-F18AC-LMM-000).

(8) Set PROBE control switch to RETRACT.

(9) Repeat step g.

i. Safety nuts to bracket with lockwire.(QA)

j. Cover wires at splice WTB002.

k. Install clamps (3, 2, and 4) and attaching parts.

l. Remove ground probe safety lock (A-F18AC-PCM-000).

m. Turn on external hydraulic and external electrical power (A-F18AC-LMM-000).

n. Set PROBE control switch to RETRACT.

o. Install door 104 (A-F18AC-LMM-010).

p. Remove external hydraulic and external electrical power (A-F18AC-LMM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

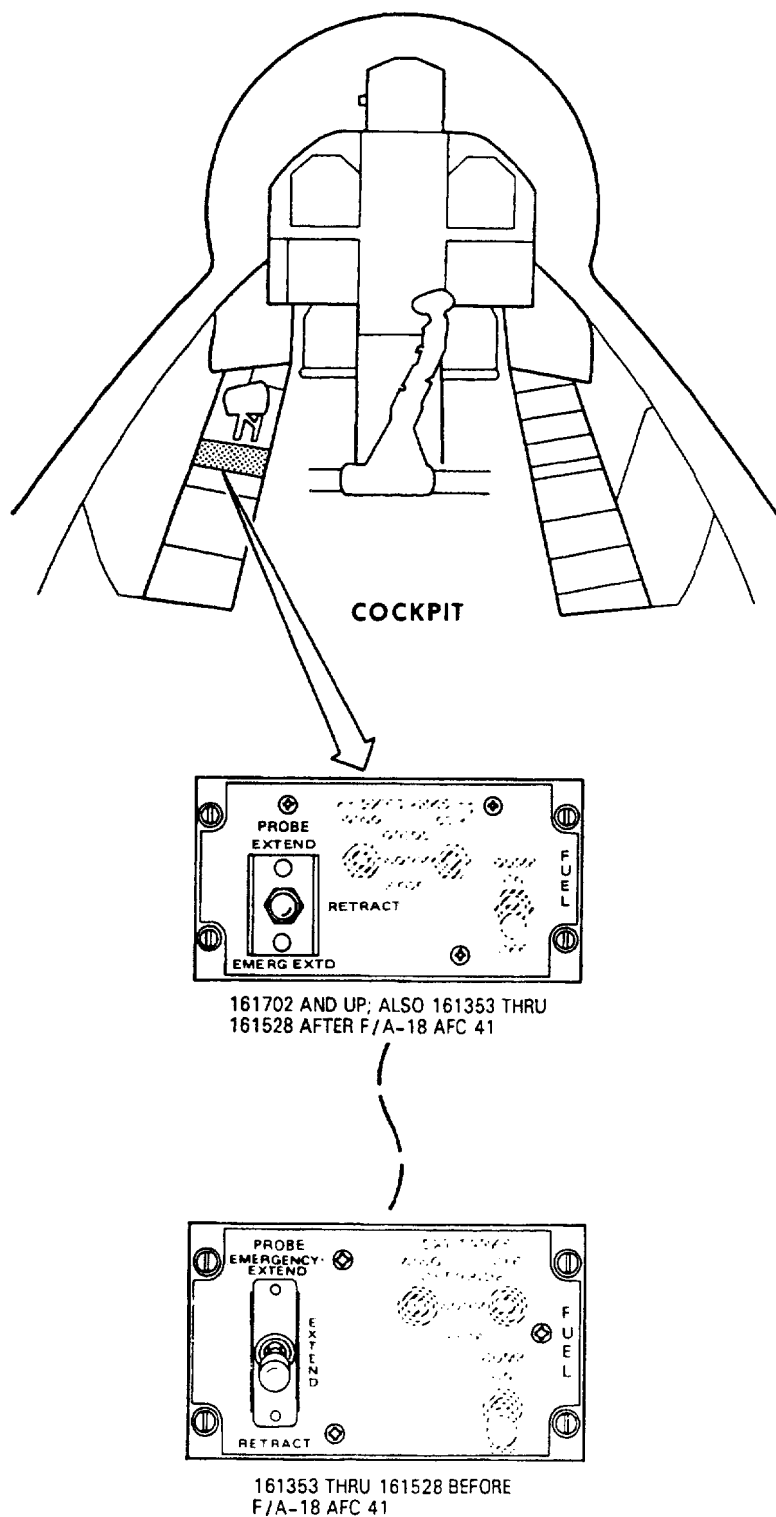
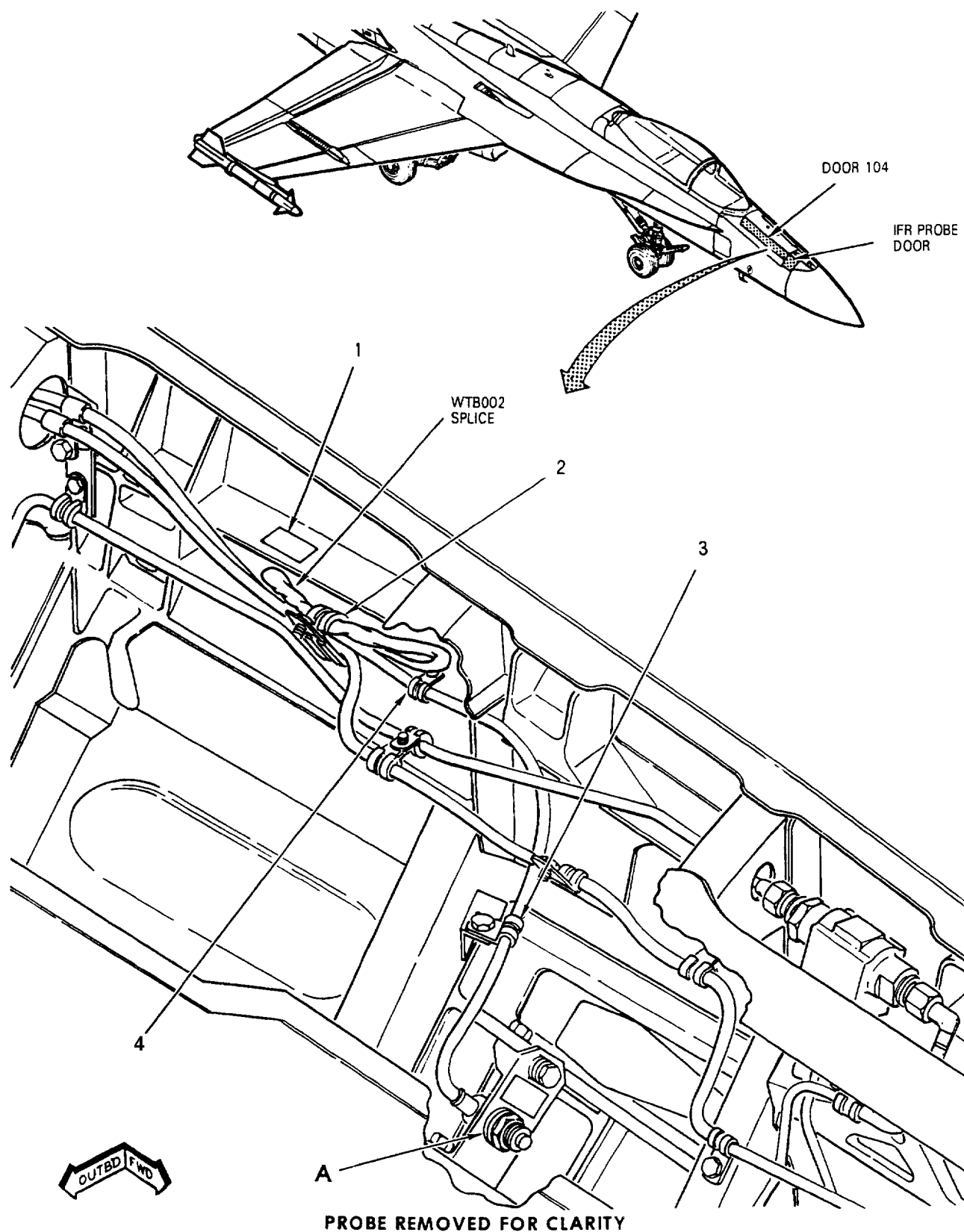
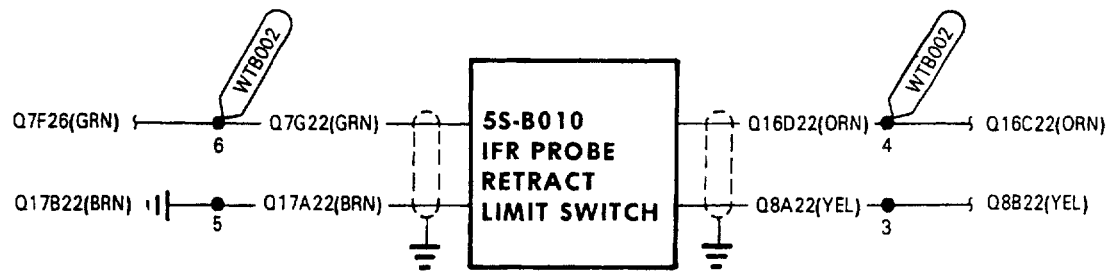


Figure 1. Inflight Refueling Probe Retract Limit Switch (5S-B010) (Sheet 1)

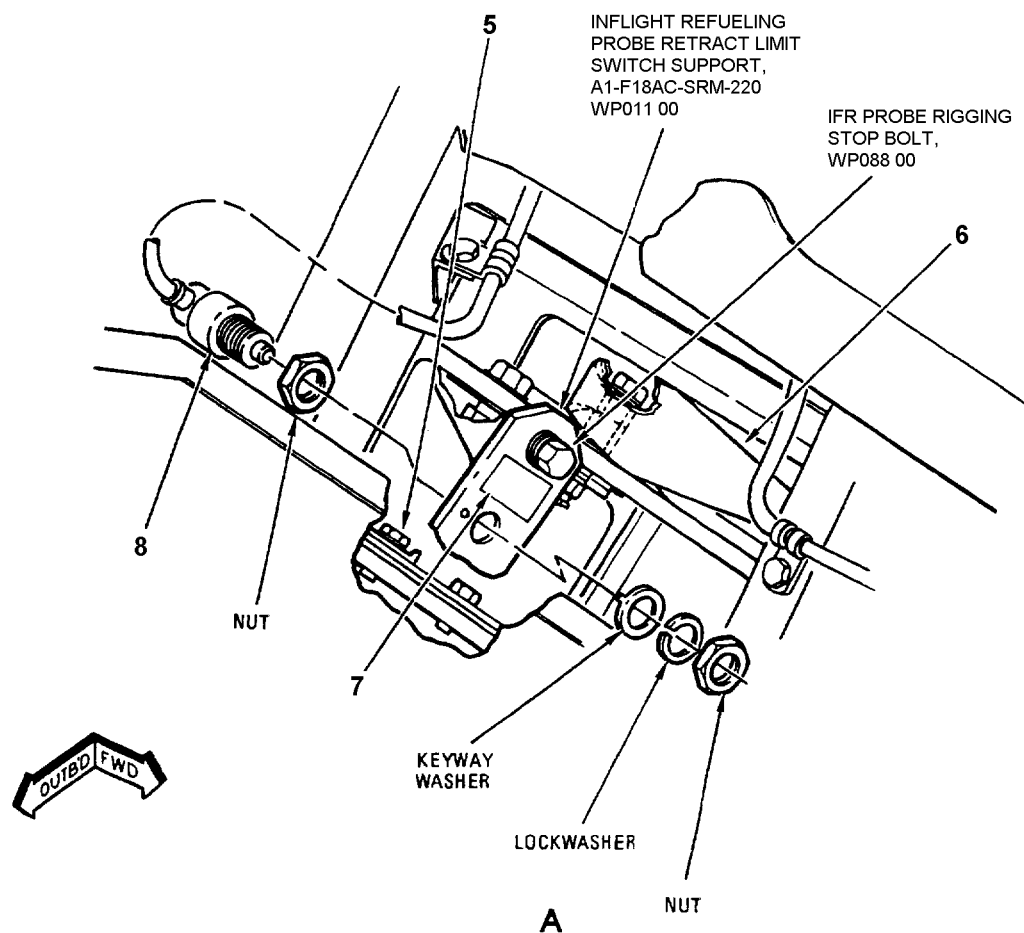


08200102

Figure 1. Inflight Refueling Probe Retract Limit Switch (5S-B010) (Sheet 2)



SWITCH WIRING HOOKUP



LEGEND

TO LOCATE WIRE SPLICE REPAIR INFORMATION IN A1-F18AC-WRM-000, USE WRA REFERENCE DESIGNATOR.

08200103

Figure 1. Inflight Refueling Probe Retract Limit Switch (5S-B010) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE RETRACT									
		LIMIT SWITCH (5S-B010)									
1	74A890601-2003	.						PLATE, IDENTIFICATION -	1		MGOZZ
								ELECTRICAL (76301)			
2	NAS1714D2-8NW	.						CLAMP	1		PAOZZ
	NAS673V3	.						BOLT (AP)	1		PAOZZ
	AN960JD10L	.						WASHER (AP)	1		PAOZZ
3	MS21919WDG4	.						CLAMP	1		PAOZZ
	NAS673V3	.						BOLT (AP)	1		PAOZZ
	AN960JD10L	.						WASHER (AP)	1		PAOZZ
4	MS21919WDG4	.						CLAMP	1		PAOZZ
	NAS673V3	.						BOLT (AP)	1		PAOZZ
	AN960JD10L	.						WASHER (AP)	1		PAOZZ
5	NAS673V5	.						BOLT	1		PAOZZ
	AN960JD10	.						WASHER (USE WITH INDEX 5)	1		PAOZZ
6	74A661272-2001	.						SPRING, FLAT - OVER CTR PROBE,	1		PAOZZ
								STOWED, BEL CRK A (76301)			
7	74A890601-2168	.						PLATE, IDENTIFICATION -	1		MGOZZ
								ELECTRICAL (76301)			
8	P6-20076	.						SWITCH, SENSITIVE (INFLIGHT	1		PAOZZ
								REFUELING PROBE RETRACT			
								LIMIT SWITCH) (21649)			
								(MCDONNELL SPEC			
								ST5N1654-21004) (5S-B010)			
								(INCLUDES KEYWAY WASHER,			
								LOCKWASHER, AND 2 NUTS)			
								(FOR ASSEMBLY SEE			
								A1-F18AC-WRM-000, WP701 22)			

Figure 1. Inflight Refueling Probe Retract Limit Switch (5S-B010) (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**INFLIGHT REFUELING FLOODLIGHT
(5DSB008)**

INFLIGHT REFUELING SYSTEM

Title	WP Number
Inflight Refueling Floodlight - 161353 THRU 161528	083 01
Inflight Refueling Floodlight - 161702 AND UP	083 02
Repair - Inflight Refueling Floodlight	083 03

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

INFLIGHT REFUELING FLOODLIGHT
(5DSB008)

INFLIGHT REFUELING SYSTEM

EFFECTIVITY: 161353 THRU 161528

Reference Material

Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 200 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin	MS24665-229
Wire, Safety, Nonelectrical	MS20995NC32 (CAGE 96906)

1. REMOVAL.

a. Apply hydraulic and electrical power (A1-F18AC-LMM-000).

b. On cockpit FUEL, system control panel set PROBE control switch EXTEND (figure 1).

c. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

d. Install probe ground safety lock (A1-F18AC-PCM-000).

e. Remove door 104 (A1-F18AC-LMM-010).

f. Remove clamps (1 and 4, figure 1) and attaching parts.

g. Remove bolt (18, detail C), washer, spacer (17), and clamps (15).

h. Remove bolt (14, detail B), washer, and clamps (15 and 16).

i. Remove nuts (12, detail A), washers, and clamps (9).

j. Remove cotter pin (8), nut (7), washer, and clamp (6).

k. Disconnect wires at WTB002 splice as shown in figure 1 (A1-F18AC-WRM-000).

i. Remove lockwire, bolts (13) attaching parts, and flood light (3) and wire bundle.

2. INSTALLATION.

a. Prepare floodlight (3, figure 1, detail A), bolts (13), and attaching parts and connecting link for electrical bond (A1-F18AC-LMM-000).

b. Install floodlight (3), bolts (13), and attaching parts.

c. Safety bolts (13) together with lockwire.

d. If tubing (11) is damaged and must be replaced do substeps below:

(1) Cut tubing to length required.

(2) Drill 1/8 inch drain hole at lowest point in tubing (11).

e. Route wire bundle through tubing (11).

f. Splice wires at WTB002 as shown in figure 1 (A1-F18AC-WRM-000).

g. Install clamp (6), washer, and nut (7). Torque nut to 95 to 100 inch-pounds and safety with cotter pin (8).

h. Install clamps (9) and tubing (11) with washers and nuts (12).

i. Install clamps (1 and 4) and attaching parts.

j. Install clamps (15 and 16, detail B), washer and bolt (14).

k. Install clamps (15, detail C), spacer (17), washer, and bolt (18).

l. Remove probe ground safety lock (A1-F18AC-PCM-000).

m. Apply hydraulic and electrical power (A1-F18AC-LMM-000).

n. On left throttle grip, set exterior lights switch to on (fwd). Floodlight (3) comes on.

o. On cockpit FUEL system control panel, set PROBE control switch to RETRACT. Floodlight (3) goes out as probe starts to retract.

p. On left throttle grip, set exterior lights switch to off (aft).

q. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

r. Install door 104 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

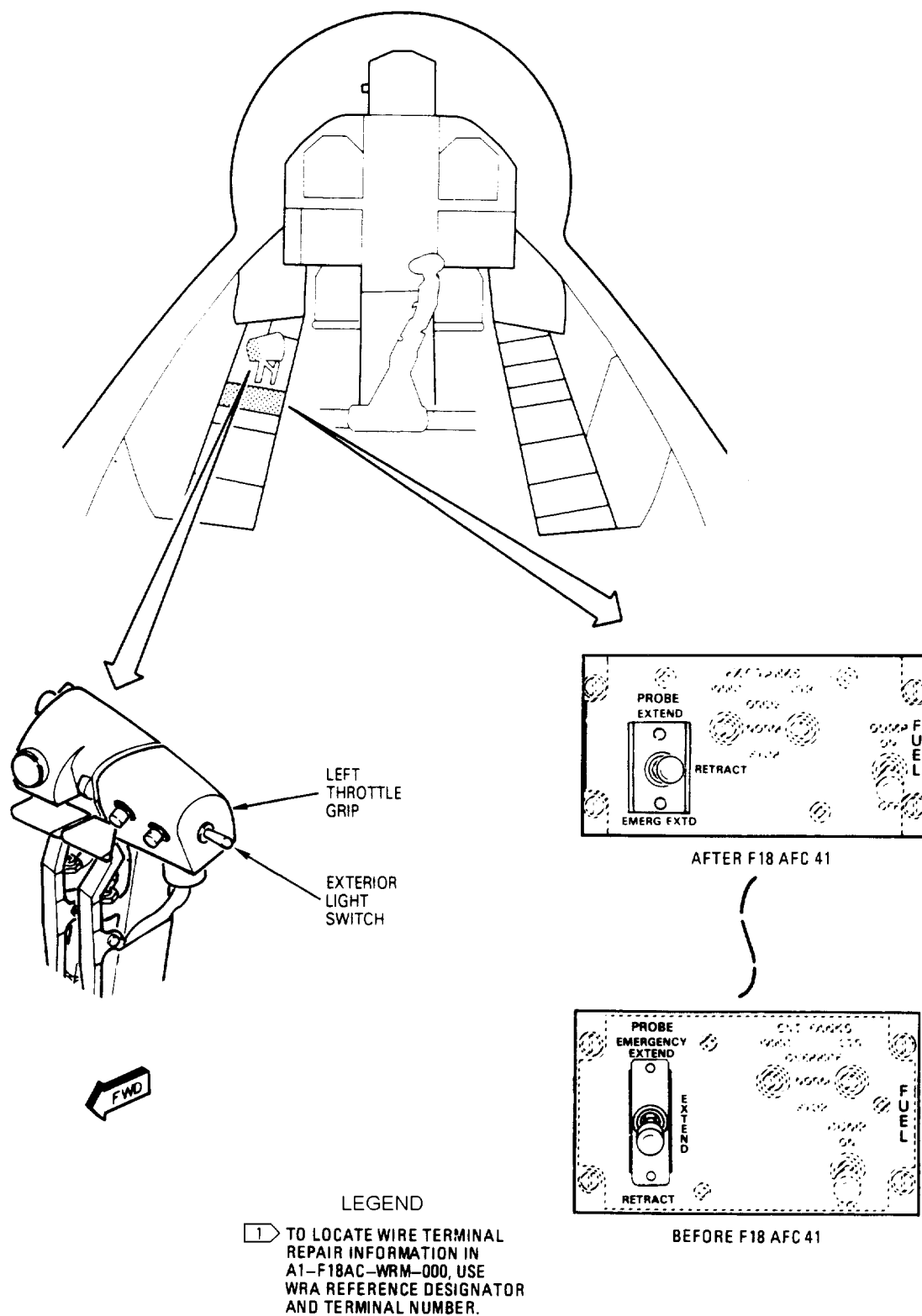
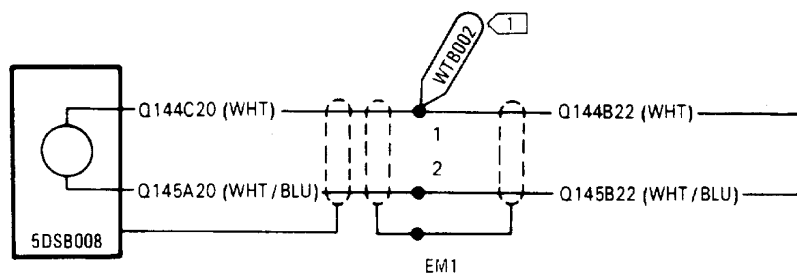


Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 1)



LIGHT WIRING HOOKUP

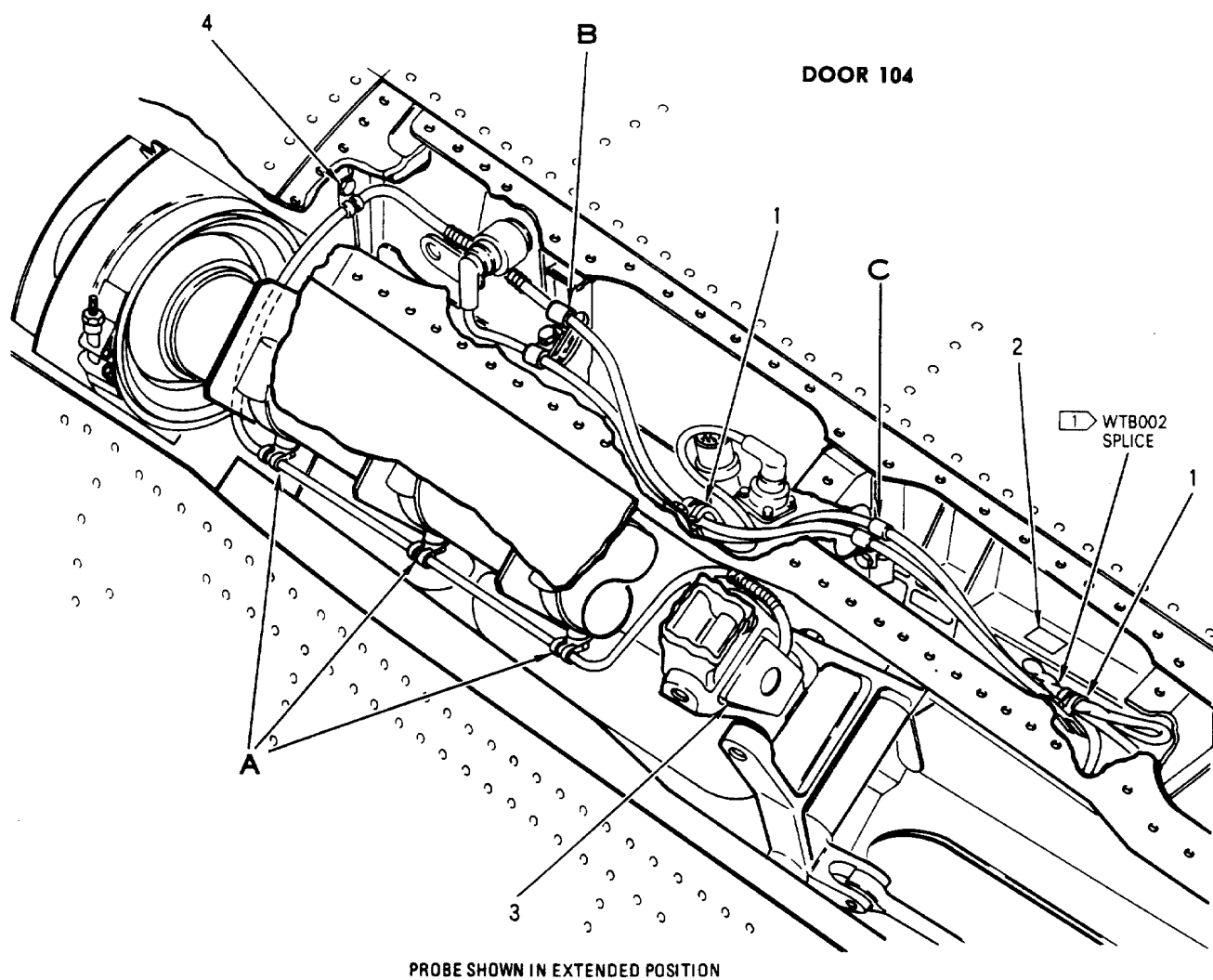


Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 2)

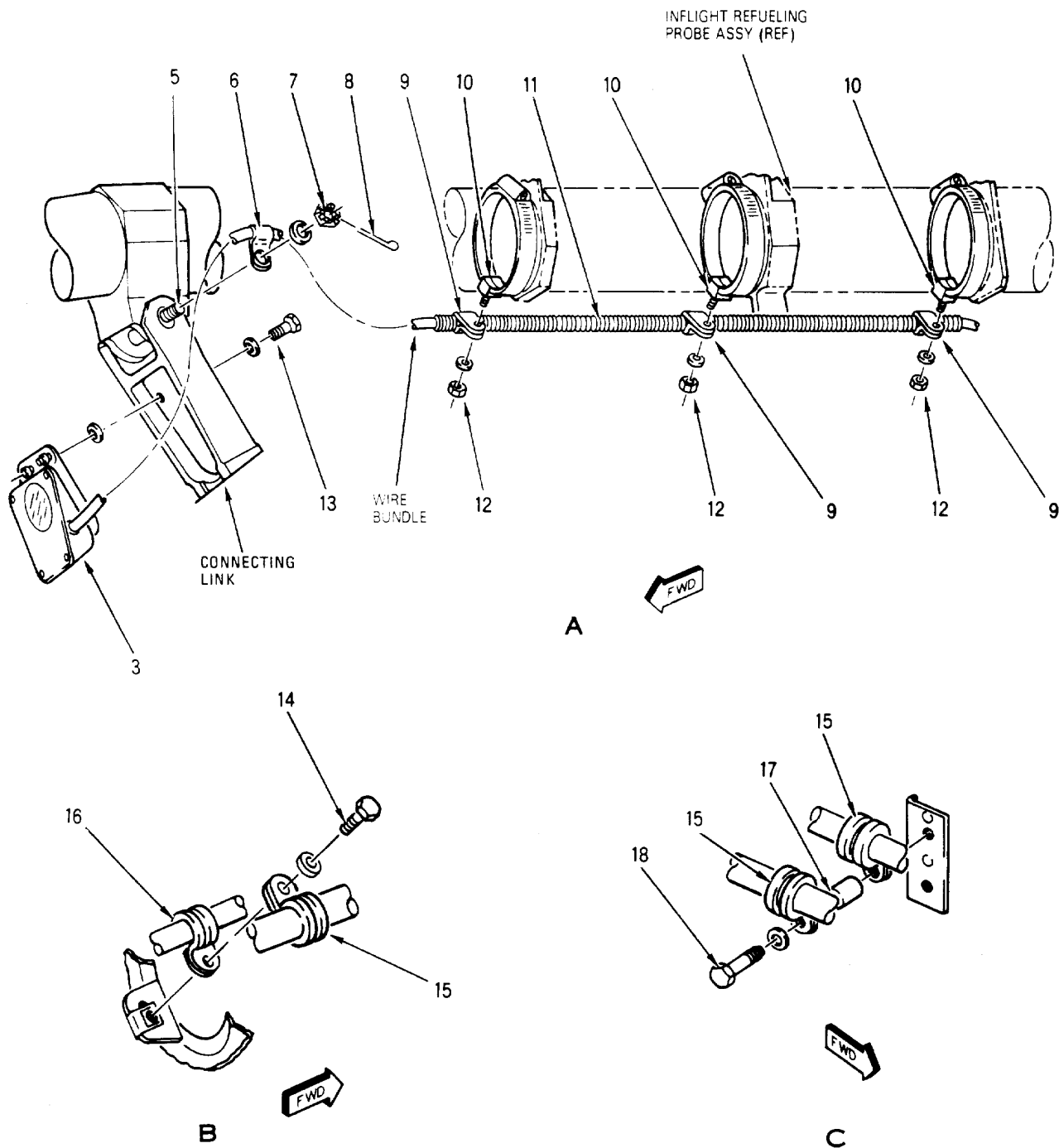


Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		INFLIGHT REFUELING								
		FLOODLIGHT (5DSB008)								
1	NAS1714D2-8NW	.	CLAMP					2		PAOZZ
	NAS673V3	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
2	74A890601-2003	.	MARKER, IDENTIFICATION -					1		MGOZZ
			ELECTRICAL (76301)							
3	30-1184-3	.	FLOODLIGHT, ELECTRICAL -					1		PAOOO
			INFLIGHT REFUELING, AIRCRAFT (INFLIGHT REFUELING FLOODLIGHT) (72914) (MCDONNELL SPEC 74-790060-111) (5DSB008) (FOR REPAIR SEE WP083 03)							
4	MS21919WDG4	.	CLAMP					5		XBOZZ
	NAS673V3	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
5	HT4049-6D48	.	SCREW, CLOSE TOLERANCE (73197) (MCDONNELL SPEC ST3M714-6D48)					1		PAOZZ
6	TA612WD5	.	CLAMP, LOOP (84971) (MCDONNELL SPEC 9M636D5)					1	*	PAOZZ
	1445WD4N	.	CLAMP, LOOP (83930) (MCDONNELL SPEC 9M636D5)					1	*	PAOZZ
7	E10080-6	.	NUT, PLAIN, SLOTTED, HEXAGON (72962) (MCDONNELL SPEC ST3M404C6)					1	*	PAOZZ
	74640C6	.	NUT, PLAIN, SLOTTED, HEXAGON (56878) (MCDONNELL SPEC ST3M404C6)					1	*	PAOZZ
	ST3M404C6	.	NUT, PLAIN, SLOTTED, HEXAGON (92595) (MCDONNELL SPEC ST3M404C6)					1	*	PAOZZ
	AN960C616L	.	WASHER (USE WITH INDEX 7)					1		PAOZZ
8	MS24665-229	.	PIN, COTTER					1		PAOZZ
9	MS21919WDF6	.	CLAMP					3		PAOZZ
10	NK1003696-05	.	LUG ASSEMBLY (98625) (MCDONNELL SPEC ST9M504-1)					3		PAOZZ
11	M81914/4-1202 #	.	TUBING					1		PAOZZ
12	MS21042L3	.	NUT					3		PAOZZ
	AN960JD10	.	WASHER (USE WITH INDEX 12)					3		PAOZZ
13	NAS1303-7H	.	BOLT					3		PAOZZ
	AN960JD10	.	WASHER (UNDER BOLT AND UNDER FLOODLIGHT) (USE WITH INDEX 13)					6		PAOZZ
14	NAS673V4	.	BOLT					1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 14)					1		PAOZZ
	A11144-7-3	.	NUT, CLIP (72962) (MCDONNELL SPEC ST3M523C3M) (USE WITH INDEX 14)					1	*	PAOZZ
	130091	.	NUT, CLIP (76530) (MCDONNELL SPEC ST3M523C3M) (USE WITH INDEX 14)					1	*	PAOZZ
15	MS21919WDG4	.	CLAMP					3		PAOZZ
16	MS21919WDG5	.	CLAMP					1		PAOZZ
17	NAS42DD6-31	.	SPACER					1		PAOZZ
18	NAS673V10	.	BOLT					1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 18)					1		PAOZZ

Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 5)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****INFLIGHT REFUELING FLOODLIGHT
(5DSB008)****INFLIGHT REFUELING SYSTEM****EFFECTIVITY: 161702 AND UP****Reference Material**

Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Wiring Repair With Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Illustration	3
Parts List	6
Inflight Refueling Floodlight (5DSB008), Figure 1	3
Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 25 Inch-Pounds	-

1. REMOVAL.

a. Apply hydraulic and electrical power (A1-F18AC-LMM-000).

b. On cockpit FUEL system control panel, set PROBE control switch to EXTEND (figure 1).

c. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

d. Install probe ground safety lock (A1-F18AC-PCM-000).

e. Remove door 104 (A1-F18AC-LMM-010).

f. Remove bolt (12, detail B) and attaching parts clamp (8).

Materials Required

Nomenclature	Specification or Part Number
Cotter, Pin	MS24665-153

g. Remove clamps (3 and 4) and attaching parts.

h. Disconnect wires at WTB002 splice.

i. Remove bolts (5, detail B) and remove floodlight (1).

2. INSTALLATION.

a. Prepare floodlight (1, figure 1, detail B), bellcrank (6), and bolts (5) for electrical bond (A1-F18AC-LMM-000).

b. Position floodlight on bellcrank (6) and install bolts (5).

c. If tubing (9) is damaged and must be replaced, do substeps below:

(1) Cut tubing (9) 27.00 inches long.

(2) Drill 1/8 inch drain hole at lowest point in tubing (9).

d. Route wires through conduit (11) and tubing (9).

e. Splice wires at WTB002 (A1-F18AC-WRM-000).

f. Install clamps (3 and 4) and attaching parts.

g. Install clamp (8), bolt (12), and attaching parts. Torque nut 12 to 17 inch-pounds and safety with cotter pin.

h. Remove probe ground safety lock (A1-F18AC-PCM-000).

i. Apply hydraulic and electrical power (A1-F18AC-LMM-000).

j. On left throttle grip, set exterior lights switch to on (fwd). Floodlight (1) comes on.

k. On cockpit FUEL system control panel, set PROBE control switch to RETRACT. Floodlight (1) goes out as probe starts to retract.

l. On left throttle grip, set exterior lights switch to off (aft).

m. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

n. Install door 104 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

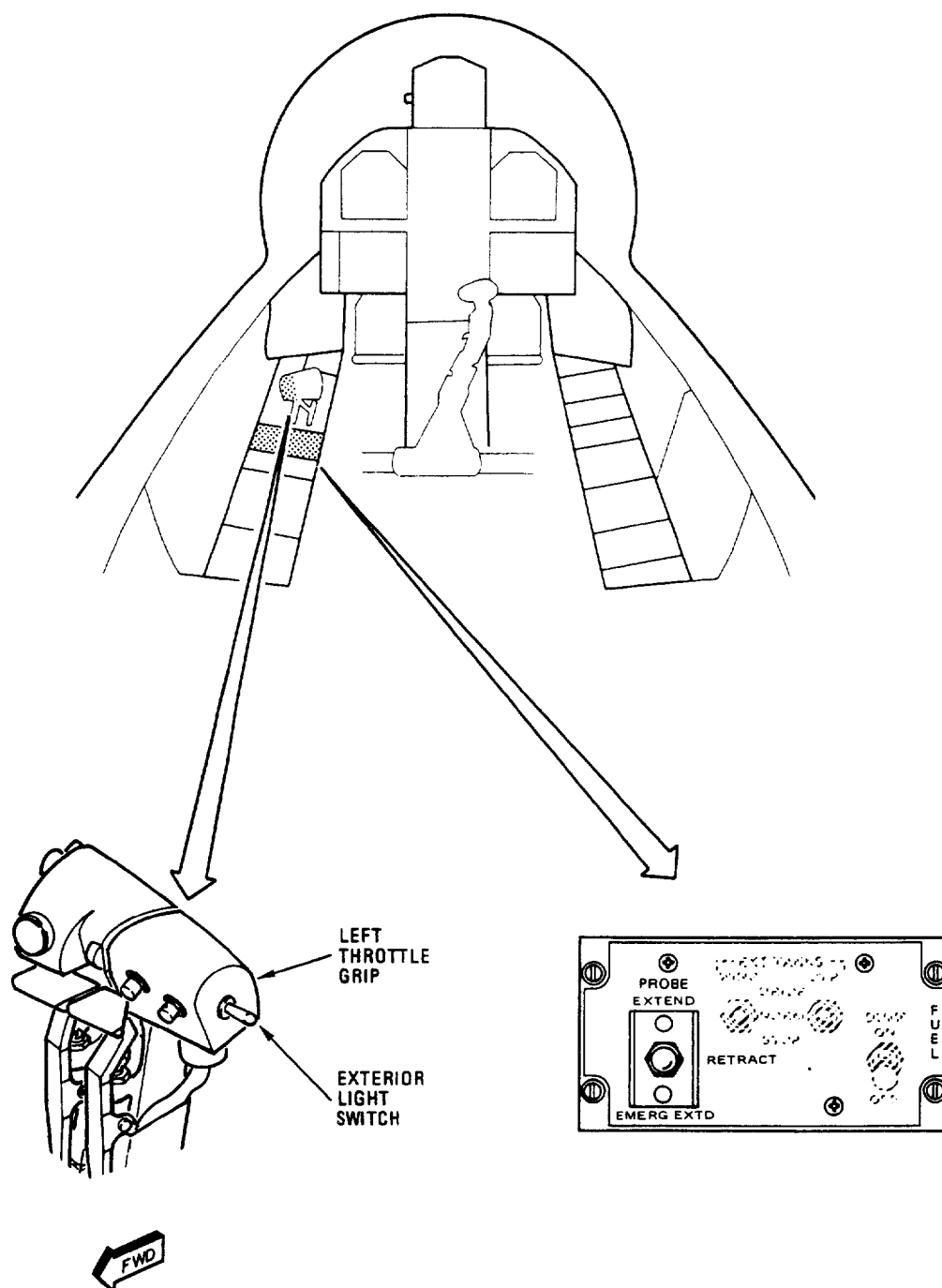


Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 1)

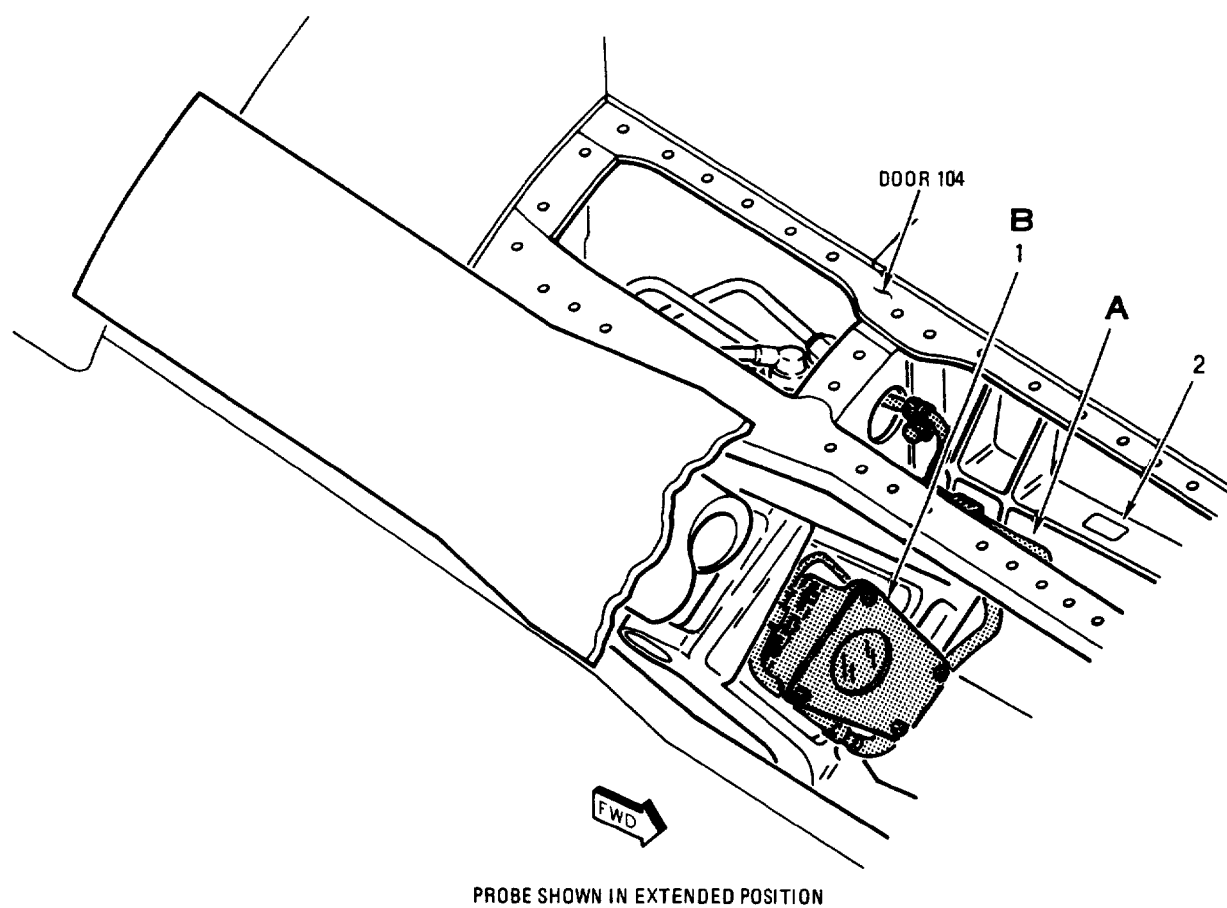
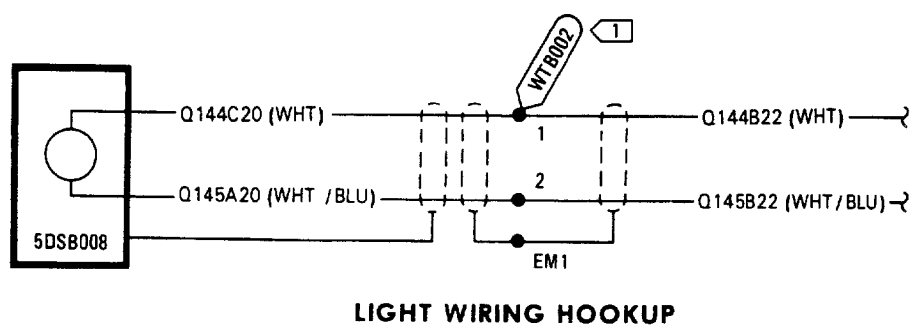


Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 2)

LEGEND

1 TO LOCATE WIRE TERMINAL
REPAIR INFORMATION IN
A1-F18AC-WRM-000, USE
WRA REFERENCE DESIGNATOR
AND TERMINAL NUMBER.

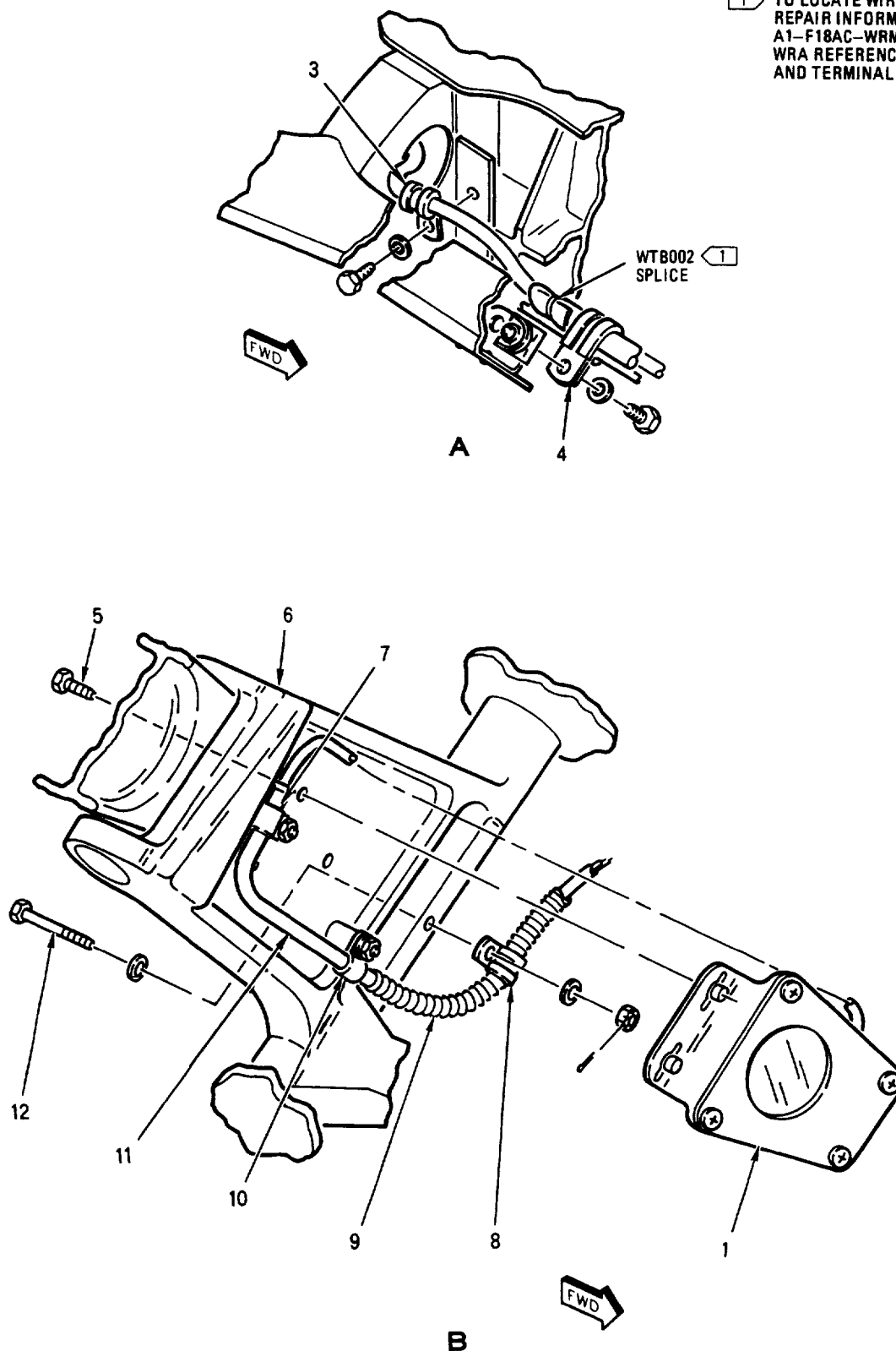


Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING FLOODLIGHT									
		(5DSB008)									
1	30-1184-3	.	FLOODLIGHT, ELECTRICAL -						1		PAOOO
		.	INFLIGHT REFUELING, AIRCRAFT (INFLIGHT REFUELING FLOODLIGHT) (72914) (MCDONNELL SPEC 74-790060-111)								
2	74A890601-2003	.	MARKER, ELECTRICAL						1		MGOZZ
		.	IDENTIFICATION (76301)								
3	MS21919WDG4	.	CLAMP						1		PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
4	NAS1714D2-8NW	.	CLAMP						1		PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
5	NAS583-7	.	BOLT						3		PAOZZ
6	74A661228-1001	.	BELLCRANK - REFUEL PROBE,						1		XBOGG
		.	ACTUATOR (76301)								
7	AN735D4	.	CLAMP, LOOP						1		PAOZZ
	NAS583-9	.	BOLT (AP)						1		PAOZZ
	NAS43DD3-16	.	SPACER (AP) (UNDER CLAMP)						1		PAOZZ
	AN960JD10	.	WASHER (AP)						1		PAOZZ
	MS21042L3	.	NUT (AP)						1		PAOZZ
8	M521919WDF6	.	CLAMP						1		PAOZZ
9	M81914/4-1202	.	TUBING (27.00 IN. LONG)						1		PAOZZ
10	AN735D4	.	CLAMP						1		PAOZZ
	NAS583-15	.	BOLT (AP)						1		PAOZZ
	NAS43DD3-36	.	SPACER (AP) (UNDER CLAMP)						1		PAOZZ
	AN960JD10	.	WASHER (AP)						1		PAOZZ
	MS21042L3	.	NUT (AP)						1		PAOZZ
11	74A661273-1005	.	TUBE, BENT, METALLIC -						1		XBOZZ
		.	ELECTRICAL CONDUIT, Y164.581 (76301) (SUPERSEDES 74A661273-1001 AND 74A661273-1003)								
12	NAS6303U20D	.	BOLT						1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 12)						2		PAOZZ
	MS17825-3	.	NUT (USE WITH INDEX 12)						1		PAOZZ
	MS24665-153	.	PIN, COTTER (USE WITH INDEX 12)						1		PAOZZ

Figure 1. Inflight Refueling Floodlight (5DSB008) (Sheet 4)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING FLOODLIGHT - REPAIR
INFLIGHT REFUELING SYSTEM

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Corrosion Inspection and Removal	WP005 00
Nose Barrel Finish System and Markings	WP018 00
Line Maintenance Procedures	A1-F18AC-LMM-000
Structural Hardware	NAVAIR 01-1A-8

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Materials Required	7
Removal	7
Support Equipment	7
Wire Rope	3
Installation	3
Materials Required	3
Removal	3
Support Equipment Required	3

Record of Applicable Technical Directives

None

1. PREPARATION.

NOTE

Floodlight must be removed from aircraft before repair can be done.

Disassemble floodlight only enough to replace defective part.

a. Identify and tag all components to aid in reassembly.

b. During repair, inspect parts per inspection, this WP.

2. COVER.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)

3. REMOVAL.

- Remove sealing compound from captive screws.
- Remove cover (8, figure 1) and gasket (7).
- Remove screw (4) and attaching parts.

4. DISASSEMBLY.

- Remove lens (9, figure 1), lens clips (10), and attaching parts per Lens Removal, this WP.

5. ASSEMBLY.

NOTE

Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

- Install instruction plate (5 figure 1).
- Install lens (9), lens clips (10) and attaching parts per Lens Installation, this WP.

6. INSTALLATION.

NOTE

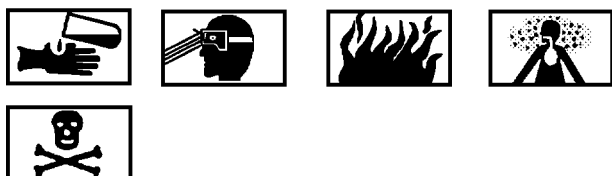
Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

- Clean cover (8, figure 1) and fasteners per Cleaning, this WP.

b. Prepare mating surfaces of wire rope (3) and cover (3) for electrical bonding (A1-F18AC-LMM-000).

c. Install wire rope (3), screw (4) and attaching parts.

d. Position gasket (7) and install cover (8).



Sealing Compound

6

e. Cover captive screws and exposed threads with sealing compound.

7. WIRE ROPE.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)
Tubing, Teflon	-

8. REMOVAL.

a. Remove cover (8, figure 1) if not already removed.

b. Remove sealing compound from screw(s) (4).

c. Remove screw(s) (4), washer(s), nut(s), and wire rope (3).

d. Clean sealing compound from screw(s) (4) and housing (2) per Cleaning, this WP.

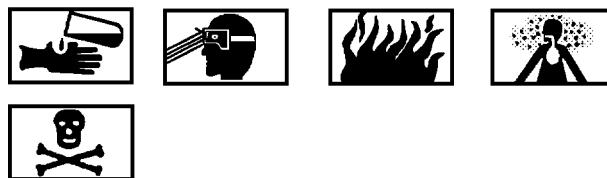
9. INSTALLATION.

NOTE

Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

a. Prepare mating surfaces of housing (2, figure 1), cover (8) and wire rope (3) for electrical bond (A1-F18AC-LMM-000).

b. Install wire rope (3), screw (4), washer and nut to housing (2), and cover (8).



Sealing Compound

6

c. Cover nut and exposed threads with sealing compound.

d. Position gasket (7) and install cover (8).

e. Cover captive screws and exposed threads with sealing compound.

10. LENS.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Primer Coating	MIL-P-23377, Type 1 (CAGE 81349)
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2, (CAGE 81349)

11. REMOVAL.

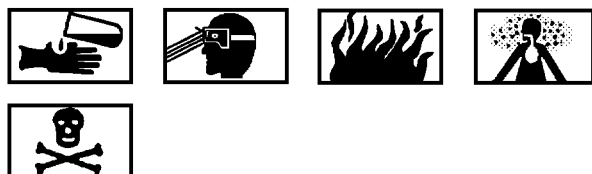
a. Remove cover (8, figure 1) if not already removed.

b. Remove sealing compound from lens retaining clips (10) and periphery of lens (9).

c. Remove rivets (NAVAIR 01-1A-8) and remove lens retaining clips (10) and lens (9) from cover (8).

d. Clean sealing compound from cover (8) per Cleaning, this WP.

12. INSTALLATION.



Sealing Compound

6

NOTE

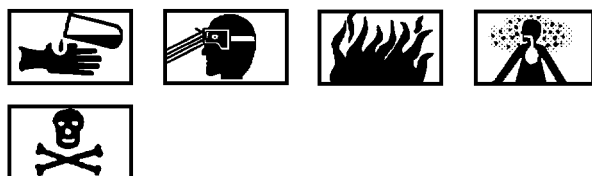
Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

a. Apply sealing compound to periphery of lens (9, figure 1).

NOTE

Opaque dot on lens must be aligned with bottom rivet hole on cover.

b. Position lens (9) and lens retaining clips (10).



Primer Coating

12

c. Coat rivet with primer. Remove excess primer.

d. Install rivets per NAVAIR 01-1A-8.

e. Apply sealing compound to rivet heads.

f. Position gasket (7) and install cover (8).

g. Cover captive screws and exposed threads with sealing compound.

13. LAMP.

Support Equipment Required

Nomenclature	Part Number or Type Designation
Crimping Tool (323151 Terminal)	46673
Crimping Tool (TE-100 Terminal)	47386
Heat Tool	HT-900
Nitrogen Servicing Unit	1317AS100-1

Materials Required

Nomenclature	Specification or Part Number
Cheesecloth	CCC-C-440 Type 1, Class 1 (CAGE 81348)
Insulation Sleeve	M23053/5-104-0 (CAGE 81349)
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)

14. REMOVAL.

WARNING

Lamp is pressurized and may shatter. Wear protective clothing and eye protection when handling.

CAUTION

To prevent damage to lamp, protect lamp from abrasions or scratches. Avoid contact with glass of lamp.

a. Remove cover (8, figure 1) if not already removed.

b. Remove nuts (11) and washers.

c. Remove screws, strap (16) and lamp (13).

15. INSTALLATION.

WARNING

Lamp is pressurized and may shatter. Wear protective clothing and eye protection when handling.

CAUTION

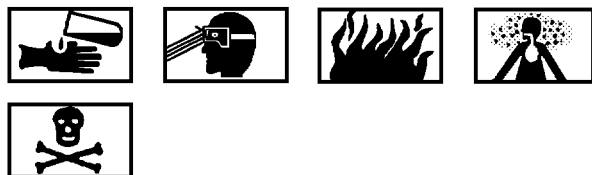
To prevent damage to lamp protect lamp from abrasions or scratches. Wipe lamp with clean cheesecloth.

To prevent malfunction or damage to floodlight, align studs on lamp with holes on strap before installation.

NOTE

Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).

- a. Install lamp (13, figure 1), strap (16) and attaching parts.
- b. Install lamp leads (13), nuts (11), and washers.
- c. Position gasket (7) and install cover (8).



Sealing Compound

6

- d. Cover all screws and exposed threads with sealing compound.

16. ASSEMBLY.

WARNING

Lamp is pressurized and may shatter. Wear protective clothing and eye protection when handling.

CAUTION

To prevent damage to lamp, protect lamp from abrasions or scratches. Wipe lamp with clean cheesecloth.

- a. Cut wires on lamp (15, figure 1) to 2.5 inches.
- b. Cut insulation sleeves to fit completely over both wires and crimped ends of terminals.
- c. Install terminals (14) with crimping tool.

WARNING

To prevent death or injury to personnel, conventional hot air guns must not be used on fueled aircraft. Exposed heating elements may cause fire or explosion.

Use of nitrogen with heat tool in an enclosed area is hazardous. Discharge of nitrogen into a poorly ventilated area such as wheel wells, stand-up bays, or crew stations can result in asphyxiation.

- d. Shrink insulation sleeves using heat tool.
- e. Install Lamp per Installation, this WP.

17. REFLECTOR.

Support Equipment Required

None

Materials Required**Nomenclature****Specification
or Part Number**

Primer Coating

MIL-P-23377,
Type 1
(CAGE 81349)

Materials Required (cont)

Nomenclature	Specification or Part Number
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)

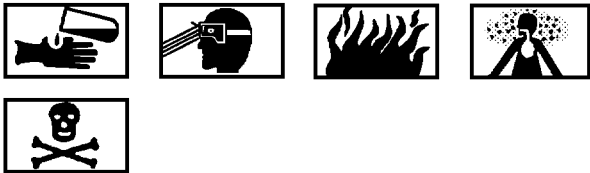
18. REMOVAL.

- a. Remove cover (8 figure 1) if not already removed.
- b. Remove sealing compound from periphery of reflector (23).
- c. Remove rivet (NAVAIR 01-1A-8) and reflector (23).
- d. Remove sealing compound from housing (20) per Cleaning, this WP.

19. INSTALLATION.

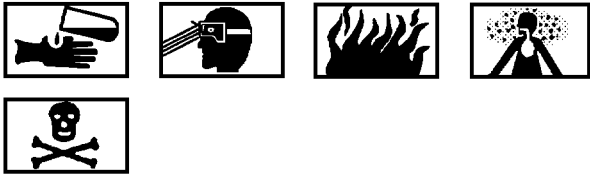
NOTE

Make sure corrosion prevention of fasteners and attaching parts is done during installation (A1-F18AC-LMM-000).



Sealing Compound 6

- a. Apply sealing compound to periphery of reflector (23 figure 1) or mating surface of housing (20).



Primer Coating 12

- b. Coat rivet with primer. Remove excess primer.

- c. Install rivet (NAVAIR 01-1A-8) and reflector (23).
- d. Position gasket (7) and install cover (8).
- e. Cover all screws and exposed threads with sealing compound.

20. IDENTIFICATION PLATE.

Support Equipment Required

None

Materials Required

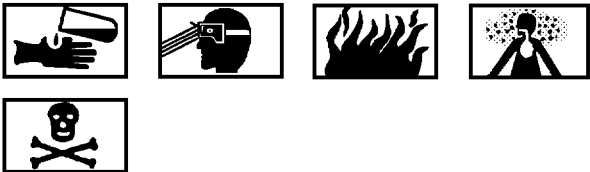
Nomenclature	Specification or Part Number
Cheesecloth	CCC-C-440, Type 1, Class 1 (CAGE 81348)
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)

21. REMOVAL.

- a. Remove sealing compound from periphery of identification plate (18 figure 1).
- b. Remove rivets (NAVAIR 01-1A-8) and remove identification plate (18).

22. INSTALLATION.

- a. Remove sealing compound from housing (1, figure 1) per Cleaning, this WP.
- b. Position identification plate (18) on housing (20) and install rivets (NAVAIR 01-1A-8).



Sealing Compound 6

- c. Apply sealing compound around periphery of mating surface of identification plate (18) and housing (20).

23. **TERMINAL BOARD.****Support Equipment Required**

None

Materials Required

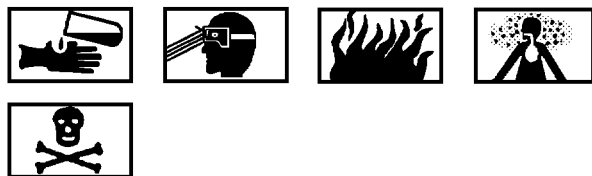
Nomenclature	Specification or Part Number
Primer Coating	MIL-P-23377 (CAGE 81349)
Sealing Compound	MIL-S-83430, Class-1/2 (CAGE 80244)

24. **REMOVAL.**

- Remove cover (8) if not already removed.
- Remove lens per Lens Removal, this WP.
- Remove rivets (NAVAIR 01-1A-8) and remove terminal board.

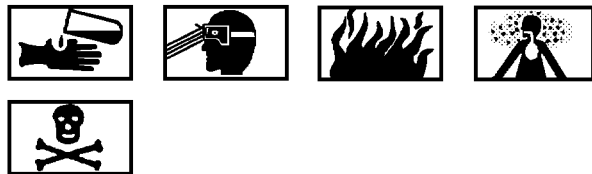
25. **INSTALLATION.**

- Position terminal board (17, figure 1) in housing (2).



Primer Coating 12

- Coat rivets with primer. Remove excess primer.
- Install rivets per NAVAIR 01-1A-8A.



Sealing Compound 13

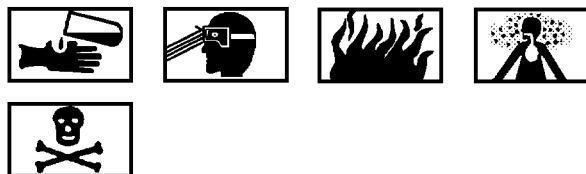
- Apply sealing compound to bucked head of rivets.

26. **CLEANING.****Support Equipment Required**

Nomenclature	Part Number or Type Designation
External Air Source (20 - 40 psi)	-

Materials Required

Nomenclature	Specification or Part Number
Cheesecloth	CCC-C-440 Type 1, Class 1 (CAGE 81348)
Isopropyl Alcohol	TT-I-735 Grade 1 (CAGE 81348)



Isopropyl Alcohol 3

- Clean all electrical and non metallic parts with cheesecloth moistened with isopropyl alcohol.

- Clean sealing compound from metallic surfaces using cheesecloth moistened with isopropyl alcohol. Wipe surface with clean cheesecloth before isopropyl alcohol evaporates. Repeat procedure until no visible contamination remains.

WARNING

To prevent injury to personnel, do not direct compressed air against skin.

- Blow loose foreign particles from parts using dry, filtered, low pressure (20 to 40 psi) air.

27. **INSPECTION.**

- Visually inspect all parts for corrosion, damage, or wear.

- Inspect threaded inserts (19 figure 1) and plate-nuts (24) for stripped threads or cross threads and replace as required (NAVAIR 01-1A-8).

c. Inspect for loose or missing rivets and replace as required (NAVAIR 01-1A-8).

d. Inspect wiring for signs of burns (overheating or short circuiting), cracked or peeled insulation and chafing.

28. PAINTING.

Support Equipment Required

None

Materials Required

None

a. Repair loose, missing or scratched paint per substeps below:

(1) Do corrosion inspection and removal (A1-F18AC-SRM-500, WP005 00).

(2) Refinish (A1-F18AC-SRM-500, WP018 00).

29. ILLUSTRATED PARTS BREAKDOWN.

30. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

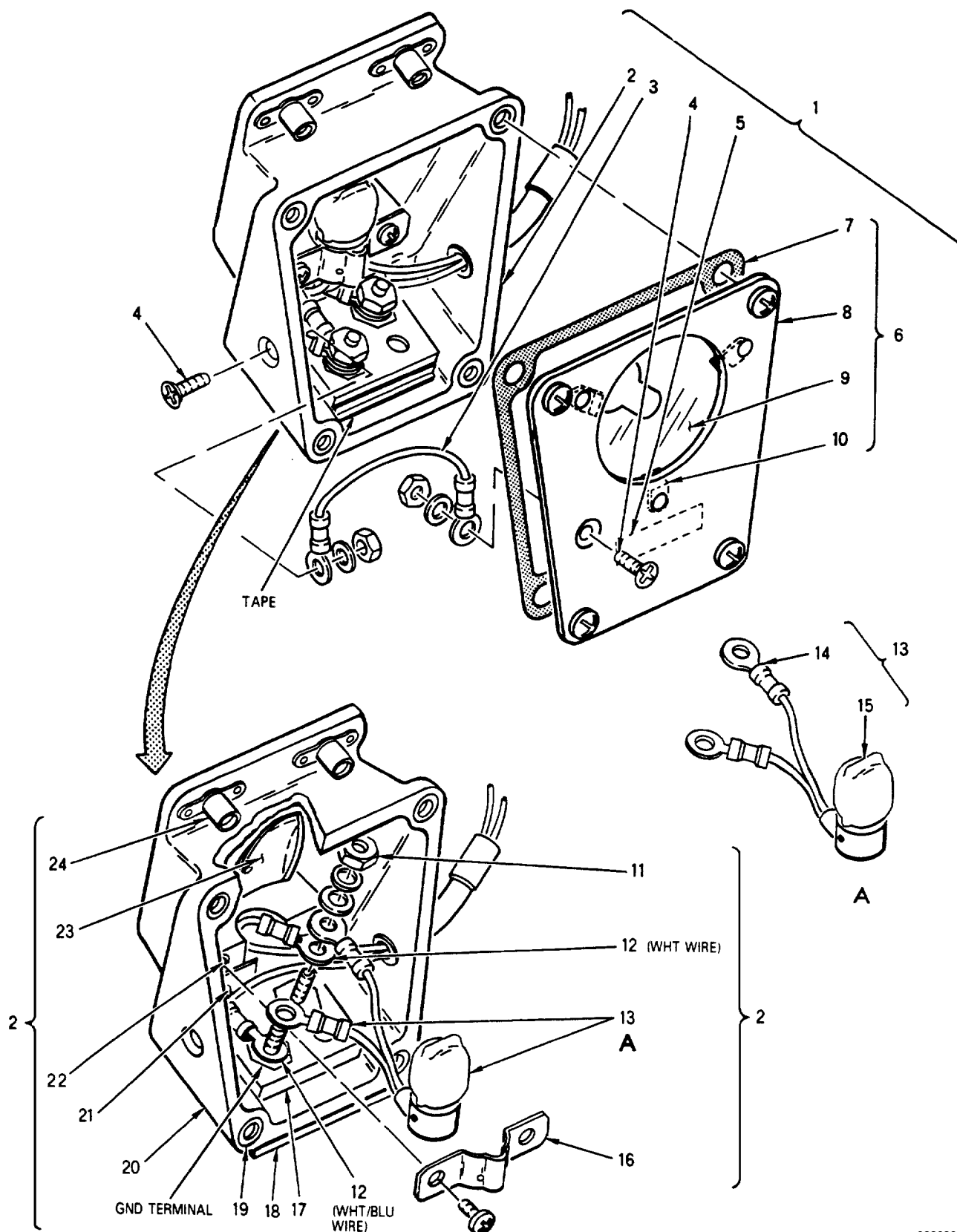


Figure 1. Inflight Refueling Floodlight Repair (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING FLOODLIGHT									
		REPAIR									
1	30-1184-3	.	FLOODLIGHT, ELECTRICAL	.					1		PAOOO
			INFLIGHT REFUELING,								
			AIRCRAFT (INFLIGHT								
			REFUELING FLOODLIGHT)								
			(72914) (MCDONNELL SPEC								
			74-790060-111) (5DSB008)								
2	31-4440-3	.	HOUSING, INFLIGHT REFUELING	.					1		XBOOO
			FLOODLIGHT, ASSY OF (72914)								
			(NHPA 30-1184-3, SM&R								
			CODE PAOOO)								
3	31-1348-13	.	WIRE ROPE ASSEMBLY	.					1		XBOZZ
			EMERGENCY LIGHT (72914)								
			(NHPA 30-1184-3, SM&R								
			CODE PAOOO)								
4	MS24693C26	.	SCREW	.					2		PAOZZ
	MS35338-41	.	WASHER, LOCK (USE WITH INDEX 4)	.					1		PAOZZ
	MS35649-262	.	NUT (USE WITH INDEX 4)	.					1		PAOZZ
5	31-2282-1	.	PLATE, INSTRUCTION - AIRCRAFT	.					1		MDOZZ
			NAVIGATIONAL LIGHT (72914)								
			(NHPA 30-1184-3, SM&R								
			CODE PAOOO)								
6	31-4441-3	.	COVER PLATE ASSY (72914)	.					1		AOOOO
			(NHPA 30-1184-3, SM&R								
			CODE PAOOO)								
	CPD7900-8-A-1	.	SCREW, CAPTIVE (AP) (08524)	.					4		PAOZZ
			(NHPA 31-4441-3, SM&R								
			CODE PAOOO)								
7	31-4627-1	.	GASKET - INFLIGHT REFUEL	.					1		XBOZZ
			FLOODLIGHT (72914) (NHPA								
			30-1184-3, SM&R CODE PAOOO)								
8	31-4439-3	.	COVER PLATE, ACCESS	.					1		MDOZZ
			INFLIGHT REFUELING								
			FLOODLIGHT (72914)								
9	A9823-11	.	LENS, RECOGNITION LIGHT (72914)	.					1		PAOZZ
			(NHPA 31-4441-3, SM&R								
			CODE PAOOO)								
10	60-3202-1	.	CLIP, LENS RETAINER (72914)	.					3		MGOZZ
			(NHPA 30-1184-3, SM&R								
			CODE PAOOO)								
	MS20426A3-3 #	.	RIVET (AP)	.					1		PAOZZ
11	MS35649-262	.	NUT	.					1		PAOZZ
	MS35338-41	.	WASHER, LOCK (USE	.					1		PAOZZ
			WITH INDEX 11)								
	MS27183-5	.	WASHER (USE WITH INDEX 11)	.					1		PAOZZ
12	322797	.	TERMINAL, LUG (00779) (NHPA	.					2		PAOZZ
			30-1184-3, SM&R CODE PAOOO)								
13	60-3203-1	.	LAMP, INCANDESCENT (72914) (NHPA	.					1		AOOOO
			30-1184-3, SM&R CODE PAOOO)								
14	323151	.	TERMINAL, LUG (00779)	.					2		PAOZZ
			(MIDLAND-ROSS SPEC TE-100)								
15	1962B	.	LAMP, INCANDESCENT (08806)	.					1		PAOZZ
			(MIDLAND-ROSS SPEC 55-1421-1)								
16	31-4442-1	.	STRAP, RETAINING - INFLIGHT	.					1		MGOZZ
			REFUELING FLOODLIGHT								
			(72914) (NHPA 30-1184-3,								
			SM&R CODE PAOOO)								
	MS51958-59	.	SCREW (AP)	.					2		PAOZZ
17	31-4244-3	.	TERMINAL BOARD (72914)	.					1		PAOZZ

Figure 1. Inflight Refueling Floodlight Repair (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
18	MS20426A3-8 #	.	RIVET (AP)	.....					2		PAOZZ
	31-4528-1	.	PLATE, IDENTIFICATION -	.....					1		MDOZZ
			INFLIGHT REFUELING								
			LIGHT (72914) (NHPA 30-1184-3,								
			SM&R CODE PAOOO)								
19	MS21209C0810	.	INSERT	.....					4		PAOZZ
20	31-4435-1	.	HOUSING, INFLIGHT REFUELING	.....					1		XBOOO
			FLOODLIGHT (72914)								
			(NHPA 30-1184-3, SM&R								
			CODE PAOOO)								
21	31-4444-1	.	STOP, SCREW - INFLIGHT.	.....					1		XBOZZ
			REFUELING FLOODLIGHT								
			(72914) (NHPA 30-1184-3,								
			SM&R CODE PAOOO)								
22	MS21209F1-10	.	INSERT	.....					2		PAOZZ
23	31-2193-7	.	REFLECTOR, LIGHT - REFUELING.	.....					1		XBOZZ
			PROBE LIGHT (72914) (NHPA								
			30-1184-3, SM&R CODE PAOOO)								
24	MS20470A3-7 #	.	RIVET (AP)	.....					2		PAOZZ
	MS21069-3	.	NUT	.....					3		PAOZZ
	MS20470A3-5 #	.	RIVET (AP)	.....					2		PAOZZ

LENGTH/SIZE TO BE DETERMINED
UPON INSTALLATION.

Figure 1. Inflight Refueling Floodlight Repair (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING FLOODLIGHT TRANSFORMER
(5T-B012)
INFLIGHT REFUELING SYSTEM

Reference Material

Gun System A1-F18AC-750-300
 Gun System - Double Ended Linkless WP003 00
 Line Maintenance Procedures A1-F18AC-LMM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Adhesive/Sealant, RTV Silicone	MIL-A-46146, Type I (CAGE 81349)
Cheesecloth	CCC-C-440, Type 1, Class 1 (CAGE 81348)

Materials Required (cont)

Nomenclature	Specification or Part Number
Cleaning Compound	MMS409 (CAGE 76301)
Dry Lubricant	MIL-L-60326, Type II (CAGE 81349)

1. REMOVAL.

- a. Remove 20mm gun (A1-F18AC-750-300 WP003 00).

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

c. Remove nuts and cover plate from transformer (1, Figure 1).

d. Remove adhesive sealant from exposed terminals on transformer (1).

e. Remove nuts and lockwashers then disconnect wire terminals from transformer (1). Identify wires if wire numbers are not legible.

f. Remove transformer (1) and attaching parts.

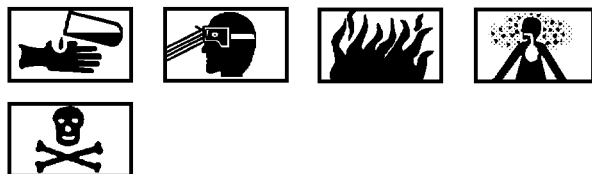
2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of transformer (1, Figure 1) and bulkhead for electrical bonding (A1-F18AC-LMM-000).

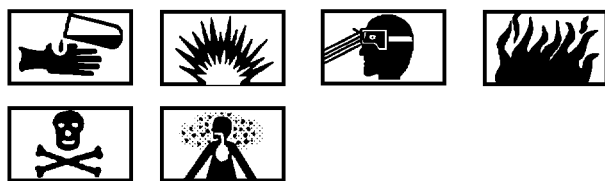
c. Install transformer (1) and attaching parts.

d. Connect wire terminals to transformer (1) with nuts and lockwashers.



Cleaning Compound

14



Adhesive, Sealant

15

e. Insulate terminals with adhesive sealant as listed below:

(1) Clean terminals with cheesecloth moistened with cleaning compound.

(2) Apply a thin coat (approximately 1/8 inch thick) of adhesive sealant over terminals.



Dry Lubricant

16

f. Apply dry lubricant to inside of cover plate, then install cover plate and nuts on transformer (1).

g. On cockpit FUEL system control panel, make sure PROBE control switch is set to RETRACT.

h. Apply electrical and hydraulic power (A1-F18AC-LMM-000).

i. On left throttle grip, set external light switch to on (fwd).

j. On cockpit FUEL system control panel, Set PROBE control switch to EXTEND and make sure inflight refueling probe door opens smoothly, and inflight refueling probe extends, and inflight refueling probe floodlight comes on.

k. Set PROBE control switch to retract and make sure inflight refueling floodlight goes out as probe starts to retract, inflight refueling probe retracts, and inflight refueling probe door closes firmly.

l. On left throttle grip, set external light switch to off (aft).

m. Remove electrical and hydraulic power.

n. Install 20mm gun (A1-F18AC-750-300, WP003 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

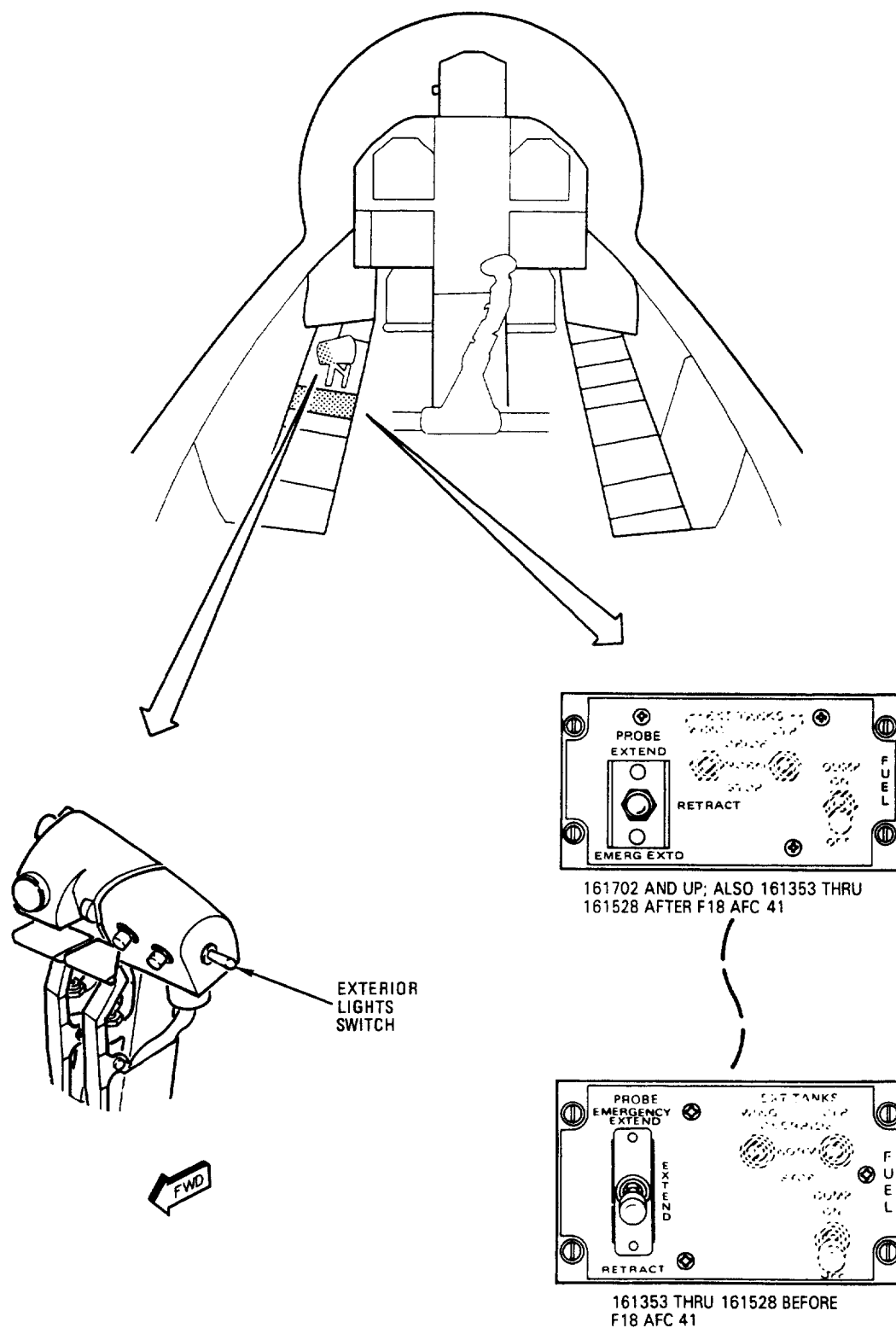
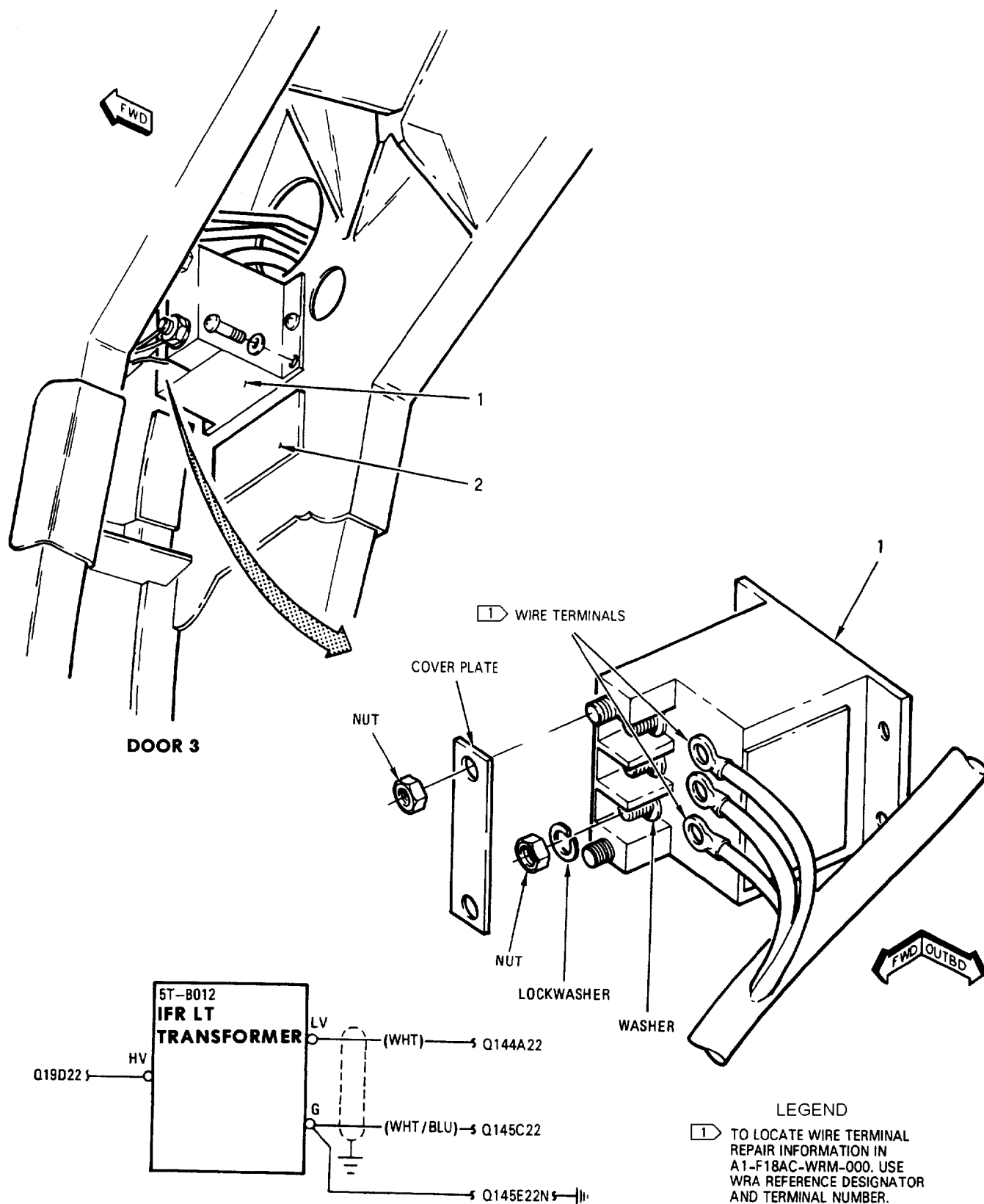


Figure 1. Inflight Refueling Floodlight Transformer (5T-B012) (Sheet 1)



08400102

Figure 1. Inflight Refueling Floodlight Transformer (5T-B012) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING FLOODLIGHT									
		TRANSFORMER (5T-B012)									
1	58-0033-1	.							1		PAOZZ
		TRANSFORMER, POWER, STEP -									
		DOWN, FLOODLIGHT,									
		IN FLT RFL (INFLIGHT									
		REFUELING FLOODLIGHT									
		TRANSFORMER) (72914)									
		(MCDONNELL SPEC									
		74-790060-113) (5T-B012)									
	NAS603-7P	.							4		PAOZZ
	AN960JD10L	.							4		PAOZZ
2	74A890601-2738	.							1		MGOZZ
		MARKER, ELECTRICAL									
		IDENTIFICATION (76301)									

Figure 1. Inflight Refueling Floodlight Transformer (5T-B012) (Sheet 3)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE FAIRING
(5MAB550)
INFLIGHT REFUELING SYSTEM

Reference Material

Aircraft Corrosion Control	A1-F18AC-SRM-500
Form In Place Sealing	WP010 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

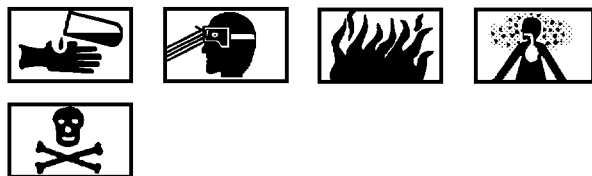
Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-

Materials Required

Nomenclature	Specification or Part Number
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)
Shim (5)	74A661247-2037
Shim (2)	74A661247-2039

1. REMOVAL.

- a. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).
- b. On cockpit FUEL system control panel, set PROBE control switch to EXTEND (figure 1).
- c. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).
- d. Install probe ground safety lock (A1-F18AC-PCM-000).
- e. If same fairing is to be reinstalled and probe will not be rigged, record thickness and position of shims (3, 4, 5, 6, 7, 8, and 9, figure 1).
- f. Remove screws (10), fairing (2) and shims (3, 4, 5, 6, 7, 8, and 9).

2. INSTALLATION - ORIGINAL FAIRING ASSEMBLY.

Sealing Compound

6

- a. Apply sealing compound to both sides of shims (3, 4, 5, 6, 7, 8, and 9, figure 1). Install shims as recorded in step e of removal. Install fairing (2) and screws (10).
- b. Remove probe ground safety lock (A1-F18AC-PCM-000).
- c. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).
- d. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.
- e. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

3. INSTALLATION - ORIGINAL FAIRING ASSEMBLY AFTER PROBE RIGGING.

- a. Remove form-in-place seal from around fairing sill.
- b. On 161958 AND UP, install fairing (2, figure 1) and screws (10). Apply form-in-place seal around fairing (2) sill (A1-F18AC-SRM-500).
- c. On 161353 THRU 161957, do substeps below:
 - (1) Remove door 104 (A1-F18AC-LMM-010).
 - (2) Remove probe ground safety lock (A1-F18AC-PCM-000).
 - (3) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).
 - (4) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.
 - (5) Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

NOTE

Shims can be installed with probe extended. Gap must be measured with probe retracted.

- (6) Install aft most row of screws (10), shim (3), and fairing (2).
- (7) Inspect for a gap of 0.001 to 0.006 inch between the aft corners of fairing (2) and fairing sill by using a 0.003 shim lamination.

- (8) Record the number of 0.003 laminations that must be removed to put gap within tolerance.

NOTE

Laminations should not be removed until all seven shimming positions have been gapped.

- (9) Install shim (4) with the next row of screws (10).
- (10) Inspect for a gap of 0.001 to 0.006 inch at each end of shim (4).
- (11) Record the number of 0.003 laminations that must be removed to put gap in tolerance.
- (12) Install shim (5) with the next row of screws (10).

(13) Inspect for a gap of 0.001 to 0.006 inch at each end of shim (5).

(14) Record the number of 0.003 laminations that must be removed to put gap in tolerance.

(15) Install shim (6) and the next row of screws (10).

(16) Inspect for a gap of 0.001 to 0.006 inch at each end of shim (6).

(17) Record the number of 0.003 laminations that must be removed to put gap in tolerance.

(18) Install shim (7) and the next row of screws (10).

(19) Inspect for a gap of 0.001 to 0.006 inch at each end of shim (7).

(20) Record the number of 0.003 laminations that must be removed to put gap in tolerance.

(21) Install shim (8) and the next row of screws (10).

(22) Inspect for a gap of 0.001 to 0.006 inch at each end of shim (8).

(23) Record the number of 0.003 laminations that must be removed to put gap in tolerance.

(24) Install shim (9) and the last row of screws (10).

(25) Inspect for a gap of 0.001 to 0.006 inch at each end of shim (9).

(26) Record the number of 0.003 laminations that must be removed to put gap in tolerance.

(27) Remove screws (10), fairing (2) and shims (3, 4, 5, 6, 7, 8, and 9).

(28) Remove recorded amounts from each shim (3, 4, 5, 6, 7, 8, and 9). Make sure shims will be reinstalled in correct position.

NOTE

All shim laminations can be removed if needed.

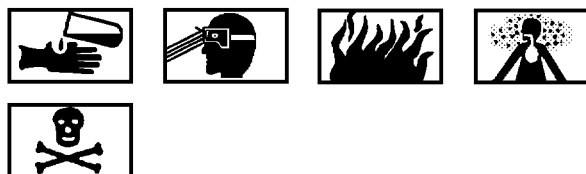
(29) Preload fairing (1) by removing four extra laminations from each shim (3, 4, 5, 6, 7, 8, and 9).

(30) Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

(31) On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

(32) Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

(33) Install probe ground safety lock (A1-F18AC-PCM-000).



Sealing Compound

6

(34) Apply sealing compound to both sides of shims (3, 4, 5, 6, 7, 8, and 9) and install fairing (2), shims and screws (10).

(35) Apply form-in-place seal around fairing (2) sill (A1-F18AC-SRM-500).

(36) Install door 104 (A1-F18AC-LMM-010).

d. Remove probe ground safety lock (A1-F18AC-PCM-000).

e. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

f. On cockpit FUEL system control panel, set PROBE control switch to RETRACT then to EXTEND. Fairing must operate smoothly without binding.

g. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

h. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).

4. INSTALLATION - NEW FAIRING ASSEMBLY.

a. For installation of new fairing assembly refer to A1-F18AC-SRM-220, WP007 00.

5. ILLUSTRATED PARTS BREAKDOWN.

6. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

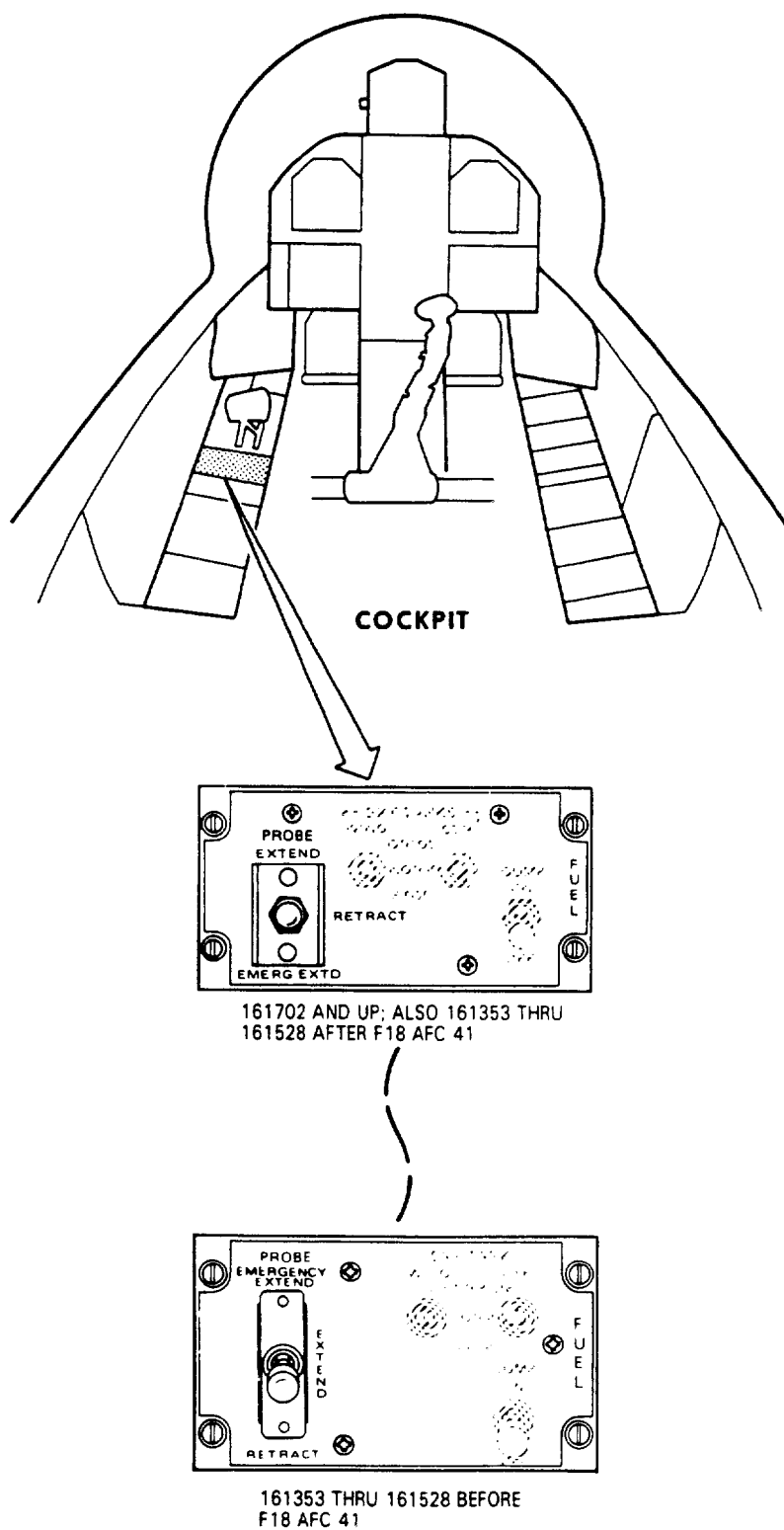


Figure 1. Inflight Refueling Probe Fairing (5MAB550) (Sheet 1)

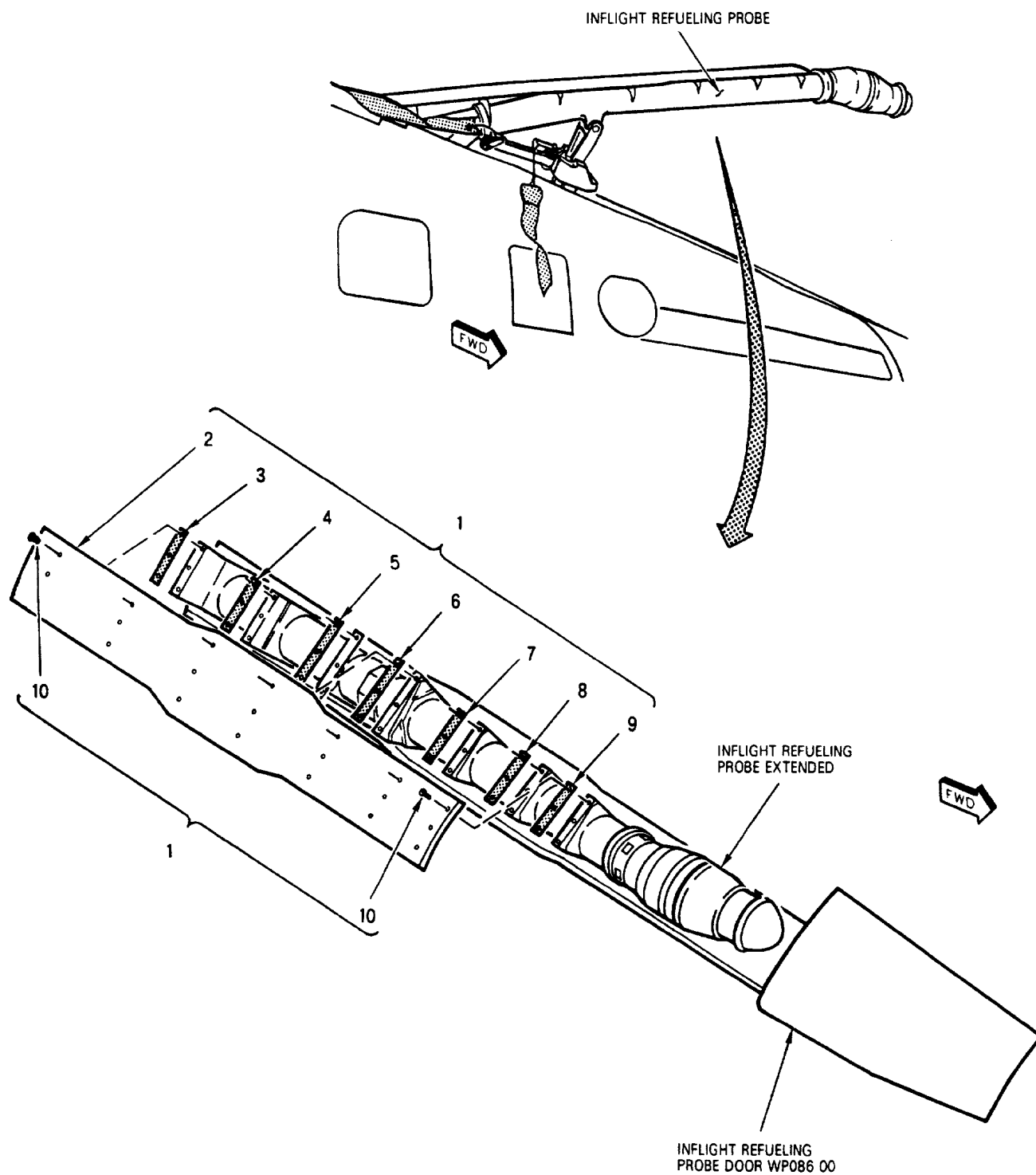


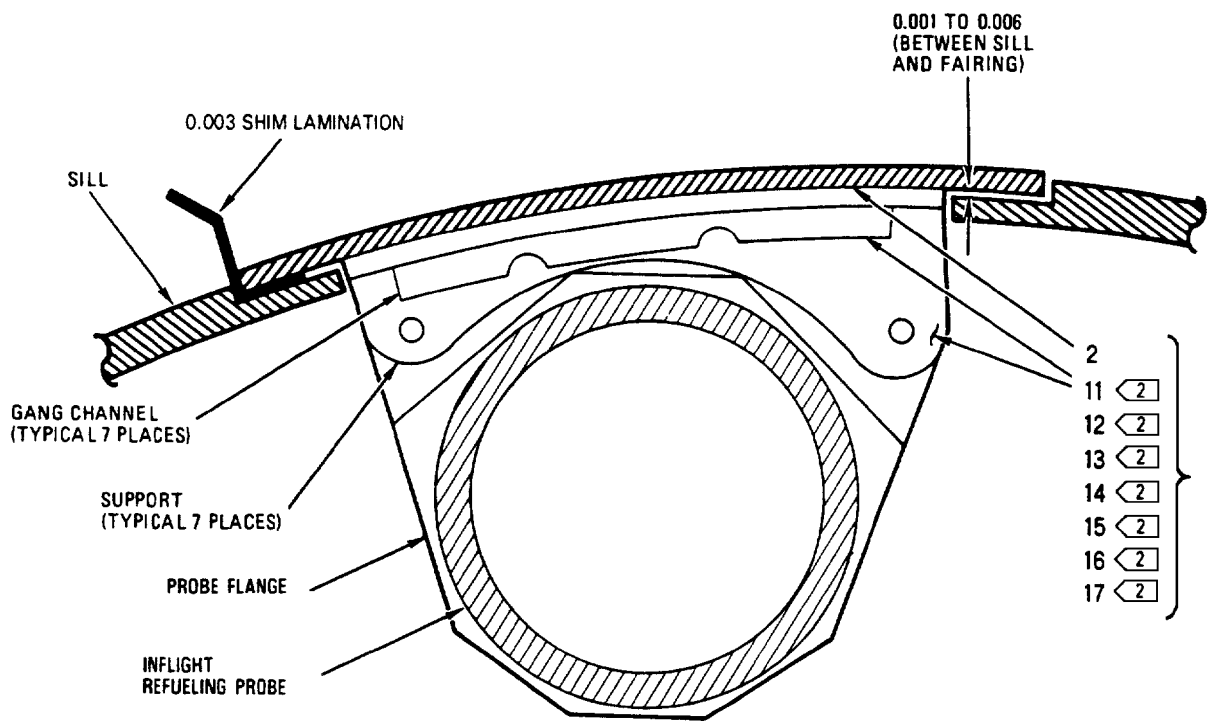
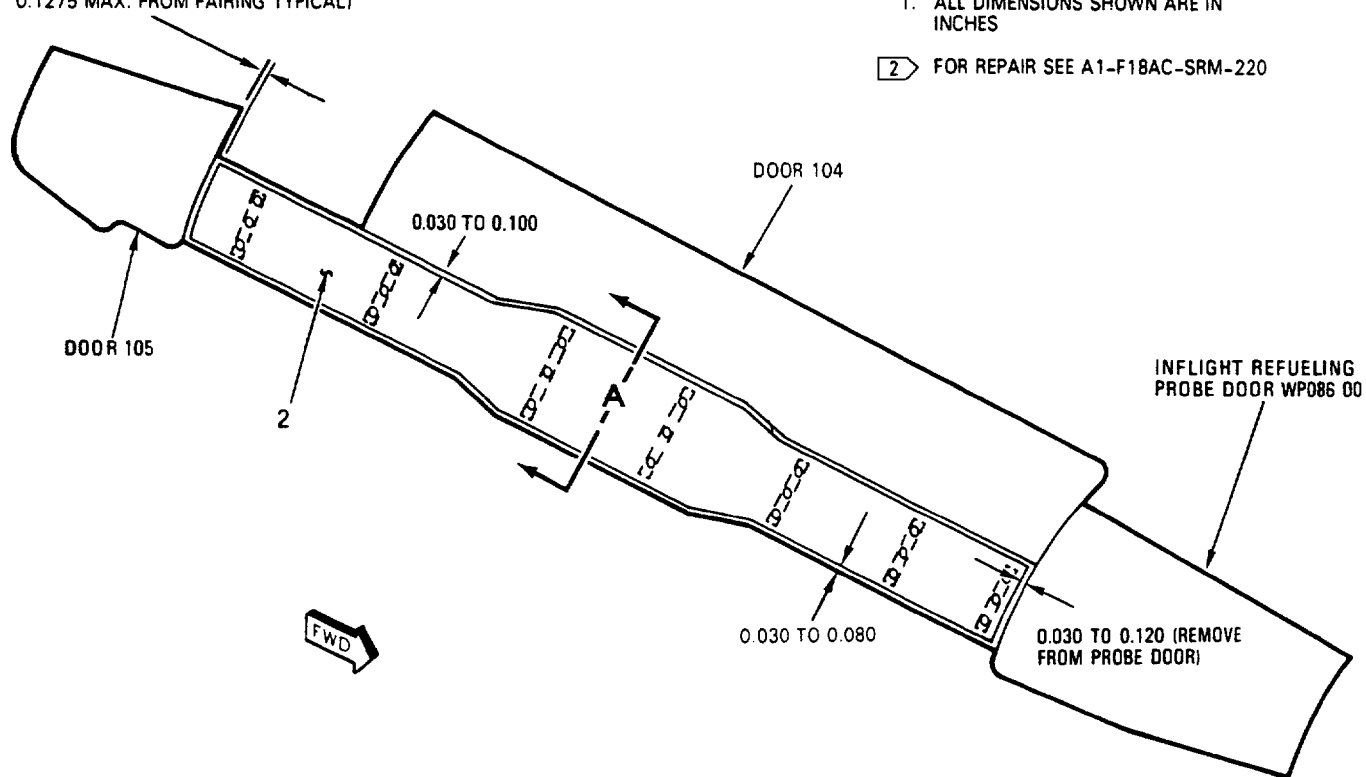
Figure 1. Inflight Refueling Probe Fairing (5MAB550) (Sheet 2)

0.100 TO 0.170
(0.0425 MAX. FROM DOOR 105,
0.1275 MAX. FROM FAIRING TYPICAL)

LEGEND

1. ALL DIMENSIONS SHOWN ARE IN INCHES

2 FOR REPAIR SEE A1-F18AC-SRM-220



A
(TYPICAL MISMATCH)

Figure 1. Inflight Refueling Probe Fairing (5MAB550) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE									
		FAIRING (5MAB550)									
1	74A661247-1001	.	FAIRING, FIXED - INFLIGHT REFUEL	.	.	.	.	.	1		PAOOO
			PROBE (INFLIGHT REFUELING								
			PROBE FAIRING) (76301) (5MAB550)								
			(NHPA 74A661244-1003, SM&R								
			CODE PBOGD)								
2	74A661247-2045	.	FAIRING, FIXED - INFLIGHT	.	.	.	.	.	1		PAOOO
			REFUELING PROBE (76301)								
			(NHPA 74A661247-1001, SM&R								
			CODE PAOOO) (DRILL AND								
			TRIM ON INSTALLATION)								
3	74A661247-2037	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
4	74A661247-2037	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
5	74A661247-2039	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
6	74A661247-2039	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
7	74A661247-2037	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
8	74A661247-2037	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
9	74A661247-2037	.	SHIM (76301) (NHPA 74A661247-1001,						1		XBOZZ
			SM&R CODE PAOOO)								
10	HT4024L3-2	.	SCREW, CLOSE TOLERANCE (73197)						21		PAOZZ
			(MCDONNELL SPEC ST3M455-3L2-1)								
11	74A661247-2035	.	SUPPORT (76301) (NHPA 74A661247-1001,						1		MDOZZ
			SM&R CODE PAOOO)								
	NAS1080AG05	.	COLLAR (AP)						2		PAOZZ
	NAS2605V02	.	PIN (AP)						2		PAOZZ
	74A661247-2043	.	NUT ASSEMBLY, SELF-LOCKING,						1		PAOZZ
			GANG CHANNEL (76301)								
			(USE WITH INDEX 11) (NHPA								
			74A661247-1001, SM&R CODE PAOOO)								
	NAS1097-3 #	.	RIVET, (AP) (SUPERSEDES ST3M675-3)						2		-
12	74A661247-2033	.	SUPPORT (76301) (NHPA 74A661247-1001,						1		MDOZZ
			SM&R CODE PAOOO)								
	NAS1080AG05	.	COLLAR (AP)						2		PAOZZ
	NAS2605V02	.	PIN (AP)						2		PAOZZ
	74A661247-2043	.	NUT ASSEMBLY, SELF-LOCKING,						1		PAOZZ
			GANG CHANNEL (76301) (USE								
			WITH INDEX 12) (NHPA 74A661247-1001,								
			SM&R CODE PAOOO)								
	NAS1097-3 #	.	RIVET (AP) (SUPERSEDES						2		-
			ST3M675-3)								
13	74A661247-2031	.	SUPPORT (76301) (NHPA 74A661247-1001,						1		MDOZZ
			SM&R CODE PAOOO)								
	NAS1080AG05	.	COLLAR (AP)						2		PAOZZ
	NAS2605V02	.	PIN (AP)						2		PAOZZ
	74A661247-2043	.	NUT ASSEMBLY, SELF-LOCKING,						1		PAOZZ
			GANG CHANNEL (76301) (USE								
			WITH INDEX 13) (NHPA 74A661247-1001,								
			SM&R CODE PAOOO)								
	NAS1097-3 #	.	RIVET (AP) (SUPERSEDES ST3M675-3)						2		-
14	74A661247-2051	.	SUPPORT ASSY (76301) (NHPA						1		MDOOO
			74A661247-1001, SM&R CODE								
			PAOOO) (SUPERSEDES 74A661247-2029)								
	74A661247-2049	.	SUPPORT (76301) (USE WITH INDEX 14)						1		MDOZZ

Figure 1. Inflight Refueling Probe Fairing (5MAB550) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	NAS1080AG05	.	COLLAR (AP)	.....					2		PAOZZ
	NAS2605V02	.	PIN (AP)	.....					2		PAOZZ
	NAS463YDD010	.	SPACER (BETWEEN SUPPORT	.....					1		PAOZZ
			AND PROBE FLANGE)								
	MS20426AD3 #	.	RIVET (AP)	.....					2		-
	74A661247-2047	.	SPACER (76301) (ALTERED	.....					1		PAOZZ
			NAS463YDD010) (BETWEEN								
			SUPPORT AND PROBE FLANGE)								
	MS20426AD3 #	.	RIVET (AP)	.....					1		-
	74A661247-2041	.	NUT ASSEMBLY, SELF-LOCKING,	.....					1		PAOZZ
			GANG CHANNEL (76301) (USE								
			WITH INDEX 14) (NHPA								
			74A661247-1001, SM&R CODE PAOOO)								
	NAS1097-3 #	.	RIVET (AP) (SUPERSEDES ST3M675-3)	.....					2		-
15	74A661247-2027	.	SUPPORT (76301) (NHPA 74A661247-1001,	.....					1		MGOZZ
			SM&R CODE PAOOO)								
	NAS1080AG05	.	COLLAR (AP)	.....					2		PAOZZ
	NAS2605V02	.	PIN (AP)	.....					2		PAOZZ
	74A661247-2041	.	NUT ASSEMBLY, SELF-LOCKING,	.....					1		PAOZZ
			GANG CHANNEL (76301) (USE								
			WITH INDEX 15) (NHPA								
			74A661247-1001, SM&R CODE PAOOO)								
	NAS1097-3 #	.	RIVET (AP) (SUPERSEDES ST3M675-3)	.....					2		-
16	74A661247-2025	.	SUPPORT (76301) (NHPA 74A661247-1001,	.....					1		MDOZZ
			SM&R CODE PAOOO)								
	NAS1080AG05	.	COLLAR (AP)	.....					2		PAOZZ
	NAS2605V02	.	PIN (AP)	.....					2		PAOZZ
	74A661247-2043	.	NUT ASSEMBLY, SELF-LOCKING,	.....					1		PAOZZ
			GANG CHANNEL (76301) (USE								
			WITH INDEX 16) (NHPA								
			74A661247-1001, SM&R CODE PAOOO)								
	NAS1097-3 #	.	RIVET, SOLID (AP) (11815) ST3M675-3	.....					2		-
17	74A661247-2023	.	SUPPORT (76301) (NHPA 74A661247-1001,	.....					1		MDOZZ
			SM&R CODE PAOOO)								
	NAS1080AG05	.	COLLAR (AP)	.....					2		PAOZZ
	NAS2605V02	.	PIN (AP)	.....					2		PAOZZ
	74A661247-2043	.	NUT ASSEMBLY, SELF-LOCKING,	.....					1		PAOZZ
			GANG CHANNEL (76301)								
			(USE WITH INDEX 17)								
			(NHPA 74A661247-1001, SM&R								
			CODE PAOOO)								
	NAS1097-3 #	.	RIVET, SOLID (AP) (11815)	.....					2		-
			(SUPERSEDES ST3M675-3)								
# LENGTH/SIZE TO BE DETERMINED AT INSTALLATION.											
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)											

Figure 1. Inflight Refueling Probe Fairing (5MAB550) (Sheet 5)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING PROBE DOOR
(5MAB546)
INFLIGHT REFUELING SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Inflight Refueling Probe Rigging	WP088 00
Aircraft Corrosion Control	A1-F18AC-SRM-500
Sealing Methods	WP010 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-
Torque Wrench, 0 to 120 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin(2)	MS24665-153
Cotter Pin(2)	MS24665-229
Wire, Safety, Nonelectrical	MS20995NC32 (CAGE 96906)

1. REMOVAL.

- a. Apply external electrical power (A1-F18AC-LMM-000).
- b. On cockpit FUEL system control panel, set PROBE control switch to EXTEND (figure 1).
- c. Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate until probe starts to extend. Immediately reduce hydraulic flow to allow slow extension of probe. Extend probe until door (1, figure 1, sheet 3) is fully open.
- d. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).
- e. Open door 10L (A1-F18AC-LMM-010).
- f. In door 10L, on no. 8 circuit breaker/relay panel assembly, open EMER IFR circuit breaker.
- g. Disconnect connecting link (4) by removing bolt (5) and attaching parts.
- h. If same door will be reinstalled, record the number of washers (9) on each side of hinge (2).
- i. Remove pins (8 and 11) and attaching parts.

2. INSTALLATION-SAME DOOR ASSEMBLY.

- a. Align holes on hinges (2 and 6, figure 1, sheet 3) with holes on hinge supports.
- b. Install pin (8) and washers (7). Safety with cotter pin. (QA)
- c. Install pin (11), washers (10) and washers (9) that were recorded during removal in step 1h of removal. Safety with cotter pin. (QA)
- d. Install bolt (5), connecting link (4) and attaching parts. Safety with cotter pin. (QA)
- e. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).
- f. On cockpit FUEL system control panel (sheet 1), set PROBE control switch to RETRACT. Probe door must operate smoothly without binding.
- g. On cockpit FUEL system control panel, set PROBE control switch to EXTEND. Probe door must operate smoothly without binding.
- h. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.
- i. Remove external hydraulic and electrical power (A1-F18AC-LMM-000).
- j. In door 10L, on no. 8 circuit breaker/relay panel, close EMER IFR circuit breaker.
- k. Close door 10L (A1-F18AC-LMM-010).

3. INSTALLATION-NEW DOOR ASSEMBLY.

- a. Remove door 104 (A1-F18AC-LMM-010).
- b. Remove form-in-place seal from around door (1, figure 1, sheet 3) sill.
- c. Remove bolt (15, sheet 4) and attaching parts.
- d. Align holes on hinges (2 and 6, sheet 3) with holes on hinge supports.
- e. Install pin (8) and washers (7).
- f. Install pin (11) and washers (9 and 10).

g. Temporarily install cotter pins in pins (8 and 11).

h. Close probe door (1) and inspect gap around door (sheet 6, detail B).

i. Trim probe door (1) as required to put gaps within tolerance per details B and C (sheet 6). (QA)

j. Make sure that probe door (1) opens and closes freely. If it does not, remove one washer (9, sheet 3).

k. Close probe door (1) and inspect moldline mismatch around door (sheet 6, detail C). (QA)

l. If mismatch is out of tolerance, remove one washer (9, sheet 3). There must be at least one washer on both sides of hinge (2).

m. Safety pins (8 and 11) with cotter pins. (QA)

n. Connect connecting link (4) by installing bolt (5) and attaching parts. Safety with cotter pin. (QA)

o. Remove lockwire from connecting link (13, sheet 4).



To prevent damage to aircraft structure, connecting link and probe door must be positioned and secured so it will not jam probe assembly when probe is retracted.

p. Position and secure connecting link (13) and probe door (1) so it will not jam probe assembly.

q. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).

r. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

s. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

t. Close probe door (1) and inspect gap between fairing and probe door (1, sheet 6 detail B).

u. With probe door (1, sheet 3) held tightly closed at its aft end, loosen jamnut and adjust connecting link (13, sheet 4) to fit between lever and bellcrank (12).



To prevent damage to aircraft structure, connecting link probe door must be positioned and secured so it will not jam probe assembly when probe is retracted.

v. Position and secure connecting link (13, sheet 4) and probe door (1) so it will not jam probe assembly.

w. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

x. On cockpit FUEL system control panel (sheet 1), set PROBE control switch to EXTEND.

y. Apply 3000 psi to inflight refueling probe actuating cylinder to make sure cylinder assembly is fully retracted and internal locking device is engaged.

z. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

aa. Install probe ground safety lock (A1-F18AC-PCM-000).

ab. Remove lockwire and loosen jamnut on inflight refueling probe actuating cylinder (sheet 4).

ac. With probe door (1, sheet 3) held tightly closed at its aft end, rotate inflight refueling probe actuating cylinder so connecting link (13, sheet 4) will fit between lever and bellcrank (12).

ad. Tighten jamnut on inflight refueling probe actuating cylinder and safety with lockwire. (QA)

ae. Preload probe door (1, sheet 3) by reducing length of connecting link (13, sheet 4) by 2-1/2 turns from length determined in step u.

af. Install bolt (15) and attaching parts. Torque bolt 60 to 85 inch-pounds and safety with cotter pin. (QA)

ag. Tighten jamnut on connecting link (13) and safety with lockwire. (QA)

ah. Remove probe ground safety lock (A1-F18AC-PCM-000).

ai. Measure across actuator bellcrank and mark center at base of bellcrank (Detail A).

aj. Align straight edge with center of bolt on connecting link and the mark established in step ai.

ak. Make sure apex of actuator bellcrank and connecting link is on center ± 0.10 inch. If it is not, rig probe (WP088 00). (QA)

al. Install door 104 (A1-F18AC-LMM-010).

am. Apply form-in-place seal around probe door sill (1) (A1-F18AC-SRM-500).

an. In door 10L, on no. 8 circuit breaker panel assembly, close EMER IFR (5CBC001) circuit breaker.

ao. Close door 10L (A1-F18AC-LMM-010).

ap. Apply external electrical and hydraulic power (A1-F18AC-LMM-000).

aq. On cockpit FUEL system control panel (sheet 1), set PROBE control switch to RETRACT.

ar. Remove external electrical and hydraulic power (A1-F18AC-LMM-000).

4. ILLUSTRATED PARTS BREAKDOWN.

5. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

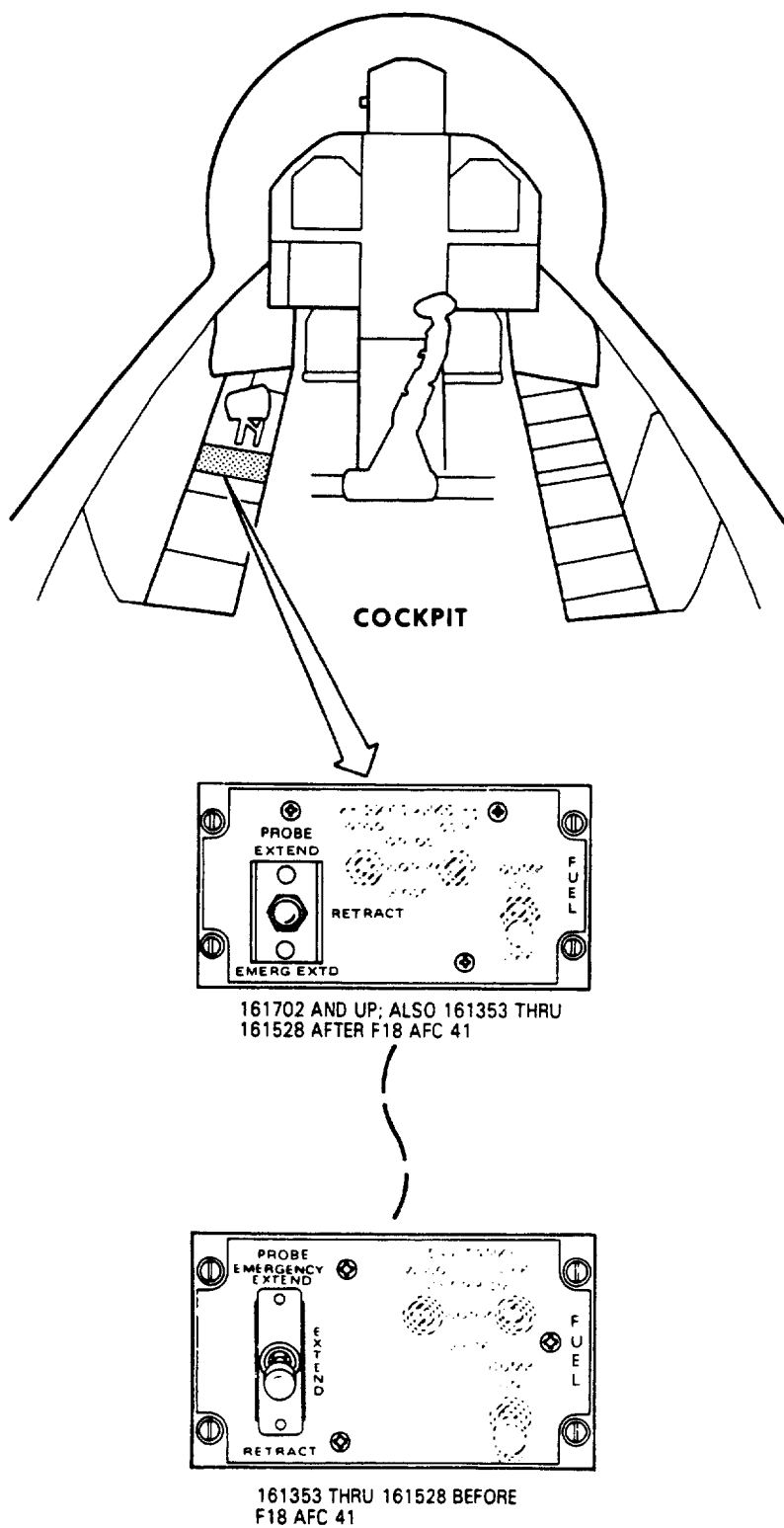


Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 1)

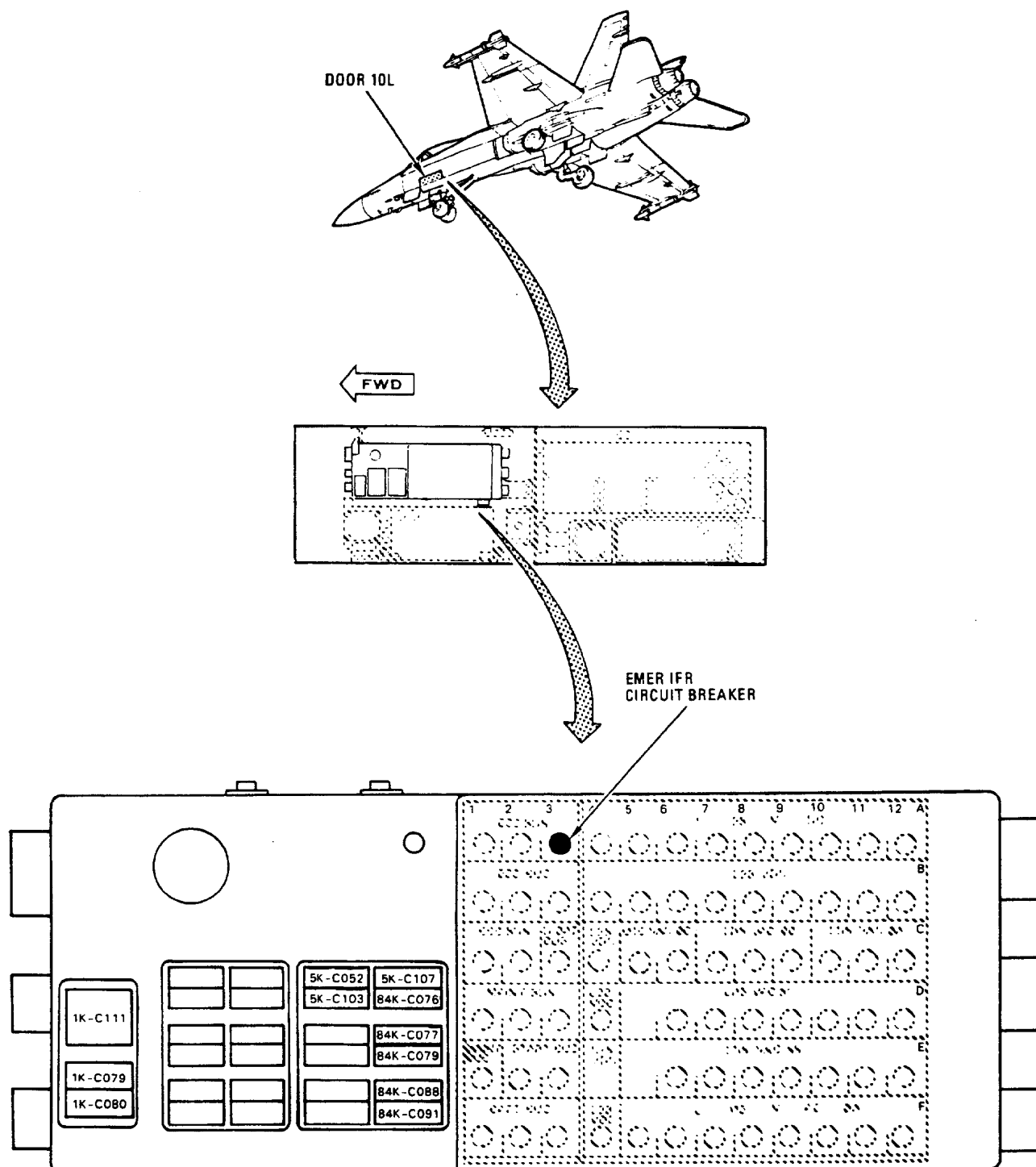


Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 2)

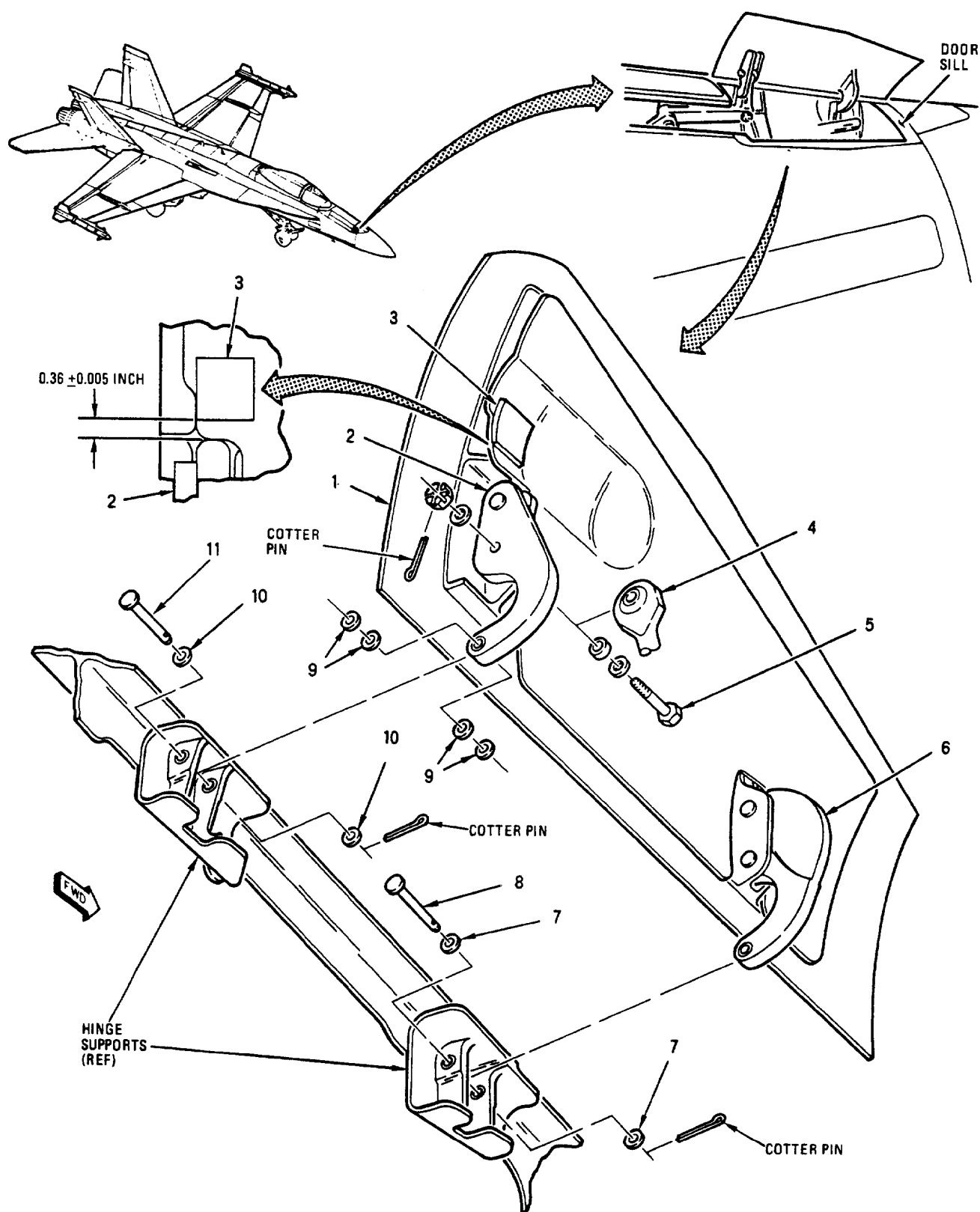


Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 3)

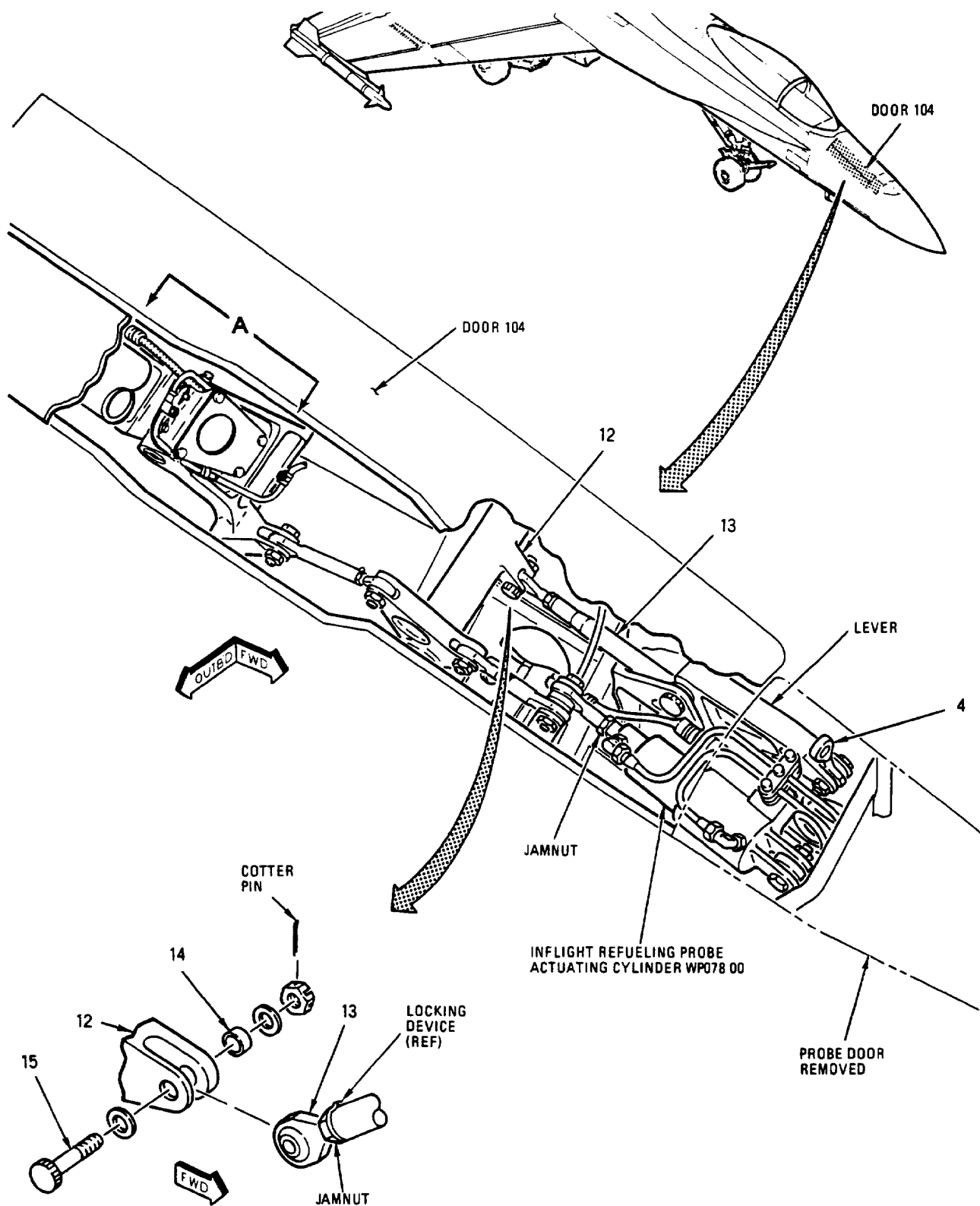


Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 4)

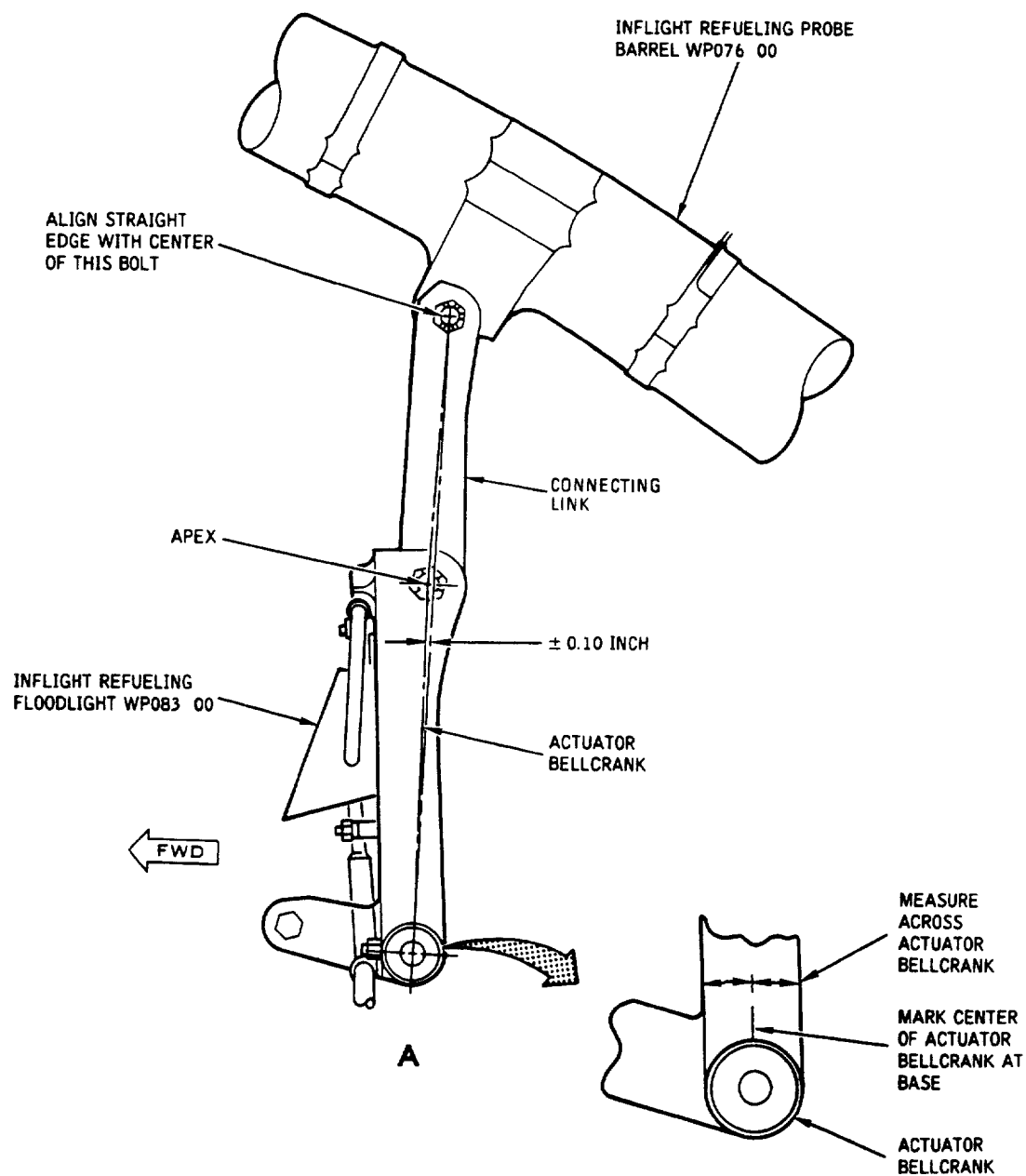


Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 5)

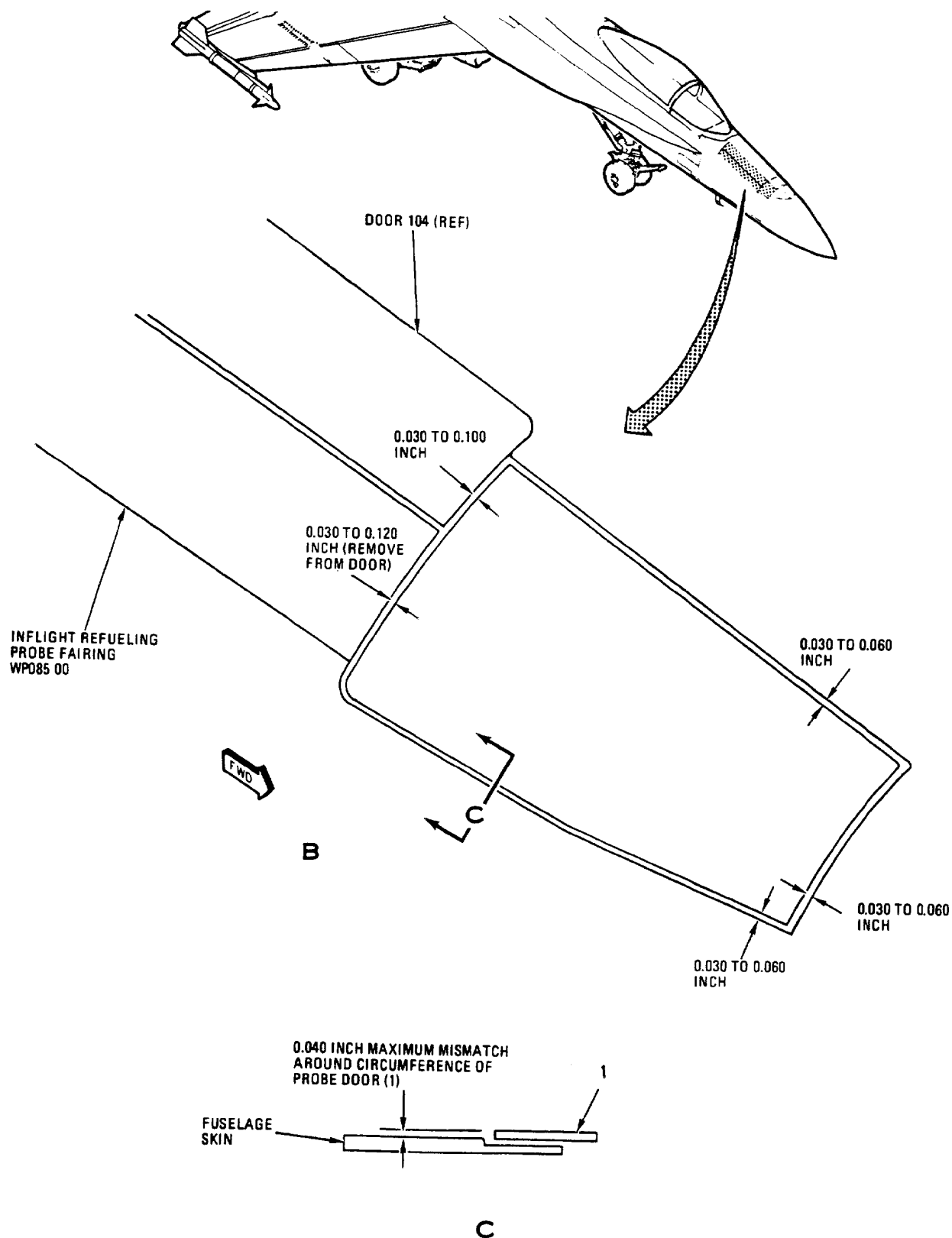


Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING PROBE DOOR									
		(5MAB546)									
1	74A313207-1003	.	DOOR, ACCESS - IN-FLT RFL PROBE,						1		PAOGG
			FUS NOSE SECT, FWD, ASSY OF								
			(INFLIGHT REFUELING PROBE								
			DOOR) (76301) (5MAB546)								
	74A313207-1001	.	DOOR, ACCESS - IN-FLT RFL PROBE,						1	*	PAOGG
			FUS NOSE SECT, FWD, ASSY OF								
			(INFLIGHT REFUELING PROBE								
			DOOR) (76391) (5MAB546)								
2	74A313023-1005	.	OFFSET HINGE ASSY - IFR PROBE						1		PAOZZ
			DOOR, AFT (HINGE) (76301)								
	NAS2606V08	.	PIN (AP)						1		PAOZZ
	NAS1080AG06	.	COLLAR (AP)						1		PAOZZ
3	74A313017-2009	.	BUMPER, RUBBER (76301)						1		PAOZZ
4	74A661260-1001	.	CONNECTING LINK, RIGID - DOOR,						1		PAOZZ
			IN-FLT-RFL (76301)								
5	NAS6304U20D	.	BOLT						1		PAOZZ
	AN960C416L	.	WASHER (USE WITH INDEX 5)						2		PAOZZ
	74640C4	.	NUT, PLAIN, SLOTTED, HEXAGON						1	*	PAOZZ
			(56878) (MCDONNELL SPEC								
			ST3M404C4) (USE WITH INDEX 5)								
	E10080-4	.	NUT, PLAIN, SLOTTED, HEXAGON						1	*	PAOZZ
			(72962) (MCDONNELL SPEC								
			ST3M404C4) (USE WITH INDEX 5)								
	ST3M404C4	.	NUT, PLAIN, SLOTTED, HEXAGON						1	*	PAOZZ
			(92595) (MCDONNELL SPEC								
			ST3M404C4) (USE WITH INDEX 5)								
	MS24665-229	.	PIN, COTTER (USE WITH INDEX 5)						1		PAOZZ
	ST4M166-4-002	.	BUSHING (76301) (USE WITH INDEX 5)						1		PAOZZ
6	74A313025-1001	.	OFFSET HINGE ASSY - IFR PROBE						1		PAOZZ
			DOOR, FWD (HINGE) (76301)								
			(DRILL ON INSTALLATION)								
	NAS2606V10	.	PIN (AP)						2		PAOZZ
	NAS1080AG06	.	COLLAR (AP)						2		PAOZZ
7	AN960C10L	.	WASHER						2		PAOZZ
8	3M39C2-27	.	PIN (76301)						1		PAOZZ
9	NAS1515M3L	.	WASHER						AR		PAOZZ
10	AN960C10L	.	WASHER						2		PAOZZ
11	3M39C2-33	.	PIN (76301)						1		PAOZZ
	MS24665-153	.	PIN, COTTER (USE WITH						1		PAOZZ
			INDEX 11)								
12	74A661207-1003	.	BELLCRANK ASSY - TIMER,						1		PBOGG
			IN-FLIGHT REFUEL								
			PROBE (76301)								
	74A661207-1001	.	BELLCRANK ASSY - TIMER,						1	*	PBOGG
			IN-FLIGHT REFUEL PROBE								
			(76301) (DRILL ON INSTALLATION)								
13	SR11574A115	.	CONNECTING LINK, RIGID -						1		PBOZZ
			MECHANISM, IFR/NLG/CANOPY								
			(97393) (MCDONNELL SPEC								
			74J668000-115) (REPLACES								
			SR11574A113)								
	SR11574A113	.	SEE ABOVE (97393) (MCDONNELL SPEC						1	*	PBOZZ
			74J668000-113) (USE								
			UNTIL EXHAUSTED)								
14	ST4M166-5-0035	.	BUSHING (76301)						1		PAOZZ
15	AIC687-5D15	.	BOLT, CLOSE TOLERANCE (06725)						1	*	PAOZZ
			(MCDONNELL SPEC ST3M744-5D15)								

Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 7)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	VS3174-5D15	.	SEE ABOVE (92215)	.	.	.	.	.	1	*	PAOZZ
	VCG0001-5D15	.	SEE ABOVE (06710)	.	.	.	.	.	1	*	PAOZZ
	M6154-5D15	.	SEE ABOVE (73197)	.	.	.	.	.	1	*	PAOZZ
	122895-5D15	.	SEE ABOVE (80539)	.	.	.	.	.	1	*	PAOZZ
	PBF1265-5D15	.	SEE ABOVE (27624)	.	.	.	.	.	1	*	PAOZZ
	S406-5D15	.	SEE ABOVE (97928)	.	.	.	.	.	1	*	PAOZZ
	AN960C516L	.	WASHER (USE WITH INDEX 15)	.	.	.	.	.	2		PAOZZ
	74640C5	.	NUT, PLAIN, SLOTTED, HEXAGON	.	.	.	.	.	1	*	PAOZZ
			(56878) (MCDONNELL SPEC								
			ST3M404C5) (USE WITH INDEX 15)								
	E10080-5	.	SEE ABOVE (72962)	.	.	.	.	.	1	*	PAOZZ
	MS24665-229	.	PIN, COTTER (USE WITH INDEX 15)	.	.	.	.	.	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Inflight Refueling Probe Door (5MAB546) (Sheet 8)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
INFLIGHT REFUELING CHECK VALVE
(5VAB613)
INFLIGHT REFUELING SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Illustration	3
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Inflight Refueling Check Valve (5VAB613), Figure 1	3
Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 43	-	Replacement of 7M404/7M550 Fuel Couplings with Improved 7M765 Fuel Couplings (ECP MDA F/A-18 00143)	1 Mar 86	-

Support Equipment Required

None

Materials Required (Continued)

Nomenclature	Specification or Part Number
Packing (2)	MS29513-230

Nomenclature	Specification or Part Number
Packing	MS29513-232
Petrolatum, Technical	VV-P-2361 (CAGE 81348)

1. REMOVAL.

a. Defuel aircraft (A1-F18AC-PCM-000).

- b. Open door 3 (A1-F18AC-LMM-010).
- c. Make sure electrical and hydraulic power are not applied (A1-F18AC-LMM-000).
- d. Disconnect hoses (2 and 4, figure 1) from coupling halves (1 and 3).
- e. Remove internal door NBB (A1-F18AC-LMM-010).
- f. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.
- g. Disconnect coupling (7, detail A) (WP013 00) from check valve (8) and tube (5).
- h. Remove attaching parts and check valve (8).

2. INSTALLATION.



Petrolatum, Technical

2

- a. Lubricate packings (6 and 9, figure 1, detail A) with petrolatum.

- b. Prepare mating surfaces of manifold (10), check valve (8), and attaching parts for electrical bonding (A1-F18AC-LMM-000).

- c. Install packings (6 and 9), check valve (8) and attaching parts. Inspect and install coupling (7) (WP013 00). If applicable, safety coupling (7) with lockwire (WP013 00). (QA)

- d. Remove no power tag from external power receptacle.

- e. Refuel aircraft using electrical power and inspect valve area for leaks (A1-F18AC-PCM-000).

- f. Install internal door NBB (A1-F18AC-LMM-010).

- g. Connect hoses (2 and 4) to coupling halves (1 and 3).

- h. Close door 3 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

- 4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

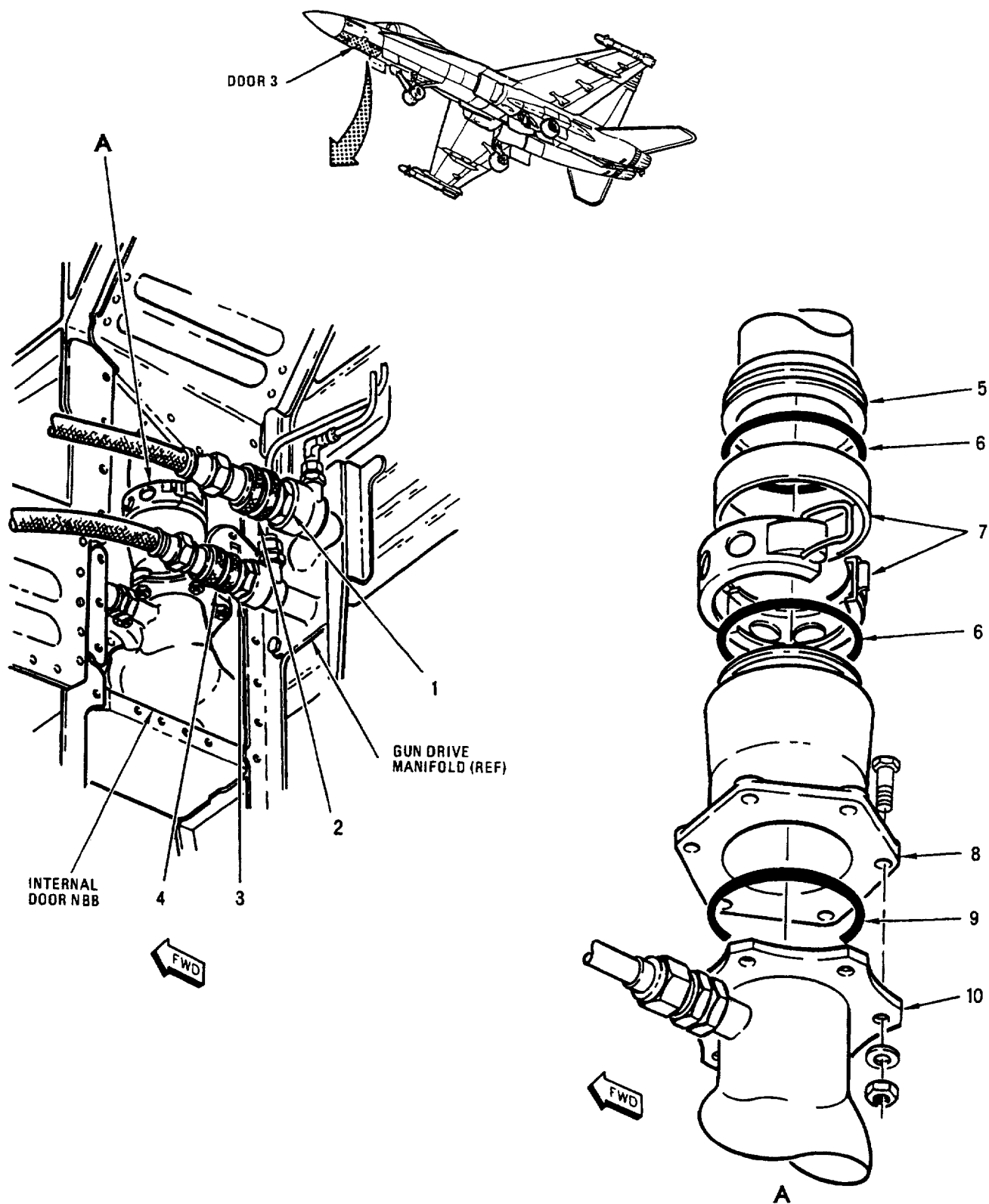


Figure 1. Inflight Refueling Check Valve (5VAB613) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT REFUELING CHECK VALVE (5VAB613)									
1	AE88776M	.	COUPLING HALF, QUICK DISCONNECT (00624) (MCDONNELL SPEC ST7M416N16M-1)						1		PAOZZ
2	AE705107-2	.	HOSE, HYDRAULIC, MEDIUM PRESSURE (00624) (GE SPEC 167C2627)						1		PAOZZ
3	AE88776R	.	COUPLING HALF, QUICK DISCONNECT (00624) (MCDONNELL SPEC ST7M416N12M-1)						1		PAOZZ
4	AE705108-2	.	HOSE, HYDRAULIC, HIGH PRESSURE (00624) (GE SPEC 167C2626)						1		PAOZZ
5	74A580698-1001	.	TUBE ASSY, METAL - ADJUSTMENT AERIAL TO GND, REFUEL (76301)						1		XBOZZ
6	MS29513-230	.	PACKING						2		PAOZZ
7	W901K40CE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-40C) (INCLUDES SLEEVE)						1	A*	PAOZZ
	14J12-40C	.	SEE ABOVE (24984)						1	A*	PAOZZ
	W901F40DE	.	SEE ABOVE (79326) (MCDONNELL SPEC 7M550-40D) (INCLUDES SLEEVE)						1	B	PAOZZ
8	32200	.	VALVE, CHECK - AERIAL REFUELING (INFLIGHT REFUELING CHECK VALVE) (04192) (MCDONNELL SPEC 74-580063-101) (5VAB613)						1	*	PAOZZ
	716000-101	.	SEE ABOVE (96124)						1	*	PAOZZ
	NAS675V7	.	BOLT (AP)						6		PAOZZ
	AN960JD516L	.	WASHER (AP)						6		PAOZZ
	NAS1291C5M	.	NUT (AP)						6		PAOZZ
9	MS29513-232	.	PACKING						1		XBOZZ
10	74A580730-1007	.	MANIFOLD, FUELING - GROUND (76301) (SUPERSEDES 74A580606-1005, 74A580606-1007, 74A580606-1009, 74A580730-1001, AND 74A580730-1003)						1		XBOZZ
	NAS674V11	.	BOLT (AP)						4		PAOZZ
	AN960JD416L	.	WASHER (AP)						4		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.

CODE	USABLE ON	MODEL
A	161924 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 043	F/A-18A/B
B	161353 THRU 161761 BEFORE F/A-18 AFC 043	F/A-18A/B

Figure 1. Inflight Refueling Check Valve (5VAB613) (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
RIGGING - INFLIGHT REFUELING PROBE
INFLIGHT REFUELING SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Inflight Refueling Probe Fairing	WP085 00
Line Maintenance Access Doors	A1-F18AC-LMM-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Illustration	7
Parts List	16
Inflight Refueling Probe, Figure 1	7
Materials Required	1
Procedure	2
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA F18-00054C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
External Electrical Power Source	-
External Hydraulic Power Source	-
Inflight Refueling Probe Position Gage	74D460013-1001
Spring Resiliency Tester	L-20

Support Equipment Required (cont)

Nomenclature	Part Number or Type Designation
Straight Headed Rigging Pin Set (part of 74D140004- 1003 rigging pin set)	74D141036-1015
Torque Wrench, 0 to 150 Inch-Pounds	-
Torque Wrench, 0 to 600 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Cotter Pin (6)	MS24665-229
Wire, Saftey, Nonekectrical	MS20995NC32 (CAGE 96906)

1. PROCEDURE.

- a. Remove door 104 (A1-F18AC-LMM-010).
- b. Apply external hydraulic and electrical power (A1-F18AC-LMM-000).
- c. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.
- d. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).
- e. Install probe ground safety lock (A1-F18AC-PCM-000).
- f. Remove inflight refueling probe fairing (WP085 00).
- g. On 161353 THRU 161528, to prevent damage to floodlight (31, figure 1, configuration X) during rigging, do substeps below:
 - (1) Remove cotter pin (28), nut (27), washer (29), and clamp (26).
 - (2) Remove nuts and washers from clamps (33).
 - (3) Remove bolts (32), washers, and floodlight (31). Secure floodlight, tubing (35), and wire bundle away from probe.
 - (4) Install washer (29) and nut (27). Torque nut 95 to 110 inch-pounds. (QA)
- h. Remove probe ground safety lock (A1-F18AC-PCM-000).
- i. Apply external electrical power (A1-F18AC-LMM-000).
- j. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.
- k. Apply external hydraulic power (A1-F18AC-LMM-000) and slowly increase hydraulic flow rate

until probe starts to retract. Immediately reduce hydraulic flow to allow slow retraction of probe. Retract probe until door (10, detail A) is fully open.

- l. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

WARNING

To prevent death or injury, EMER IFR circuit breaker should be open to prevent extension of probe.

- m. Open door 10L (A1-F18AC-LMM-010).
- n. Open EMER IFR circuit breaker on no. 8 circuit breaker panel assembly.
- o. Record number of washers (16, detail A) on each side of hinge (11).
- p. Remove bolt (12) and attaching parts.
- q. Remove pins (15 and 17), attaching parts and door (10).
- r. Remove bolt (22, detail B), bushings (21) and attaching parts.

NOTE

3000 psi is required to fully retract inflight refueling probe actuating cylinder because of its internal locking device.

- s. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).
- t. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.
- u. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).
- v. Remove lockwire, loosen jamnut, and adjust inflight refueling probe actuating cylinder retracted length to 11.60 inches (view H).
- w. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.
- x. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

y. Extend inflight refueling probe actuating cylinder about half way.

z. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

aa. Remove bolt (18, detail B), bushing (23) and attaching parts.

ab. Install bolt (22) through bellcrank actuator (4) and connecting link (5) with attaching parts. Torque nut 160 to 210 inch-pounds. (QA)

ac. Manually turn linkage so bellcrank actuator (4, view C) is against stop bolt (36).

ad. Inspect for a maximum gap of 0.006 inch between connecting link (5) and a straight edge. (QA)

ae. If there is no clearance between connecting link (5) and straight edge inspect for a maximum gap of 0.026 inch between bellcrank actuator (4) and straight edge. (QA)

af. If either gap in steps ad and ae is out of tolerance, do substeps below:

(1) Remove bolt (22, view B) and attaching parts.

(2) Remove lockwire and loosen jamnut on connecting link (5).

(3) Adjust connecting link (5) so rigging pin (view C) will fit into rigging hole when centerlines of connecting link (5) and bellcrank actuator (4) are in a straight line.

(4) Tighten jamnut on connecting link (5).

(5) Remove rigging pin.

(6) Install bolt (22, detail B) through connecting link (5) and bellcrank actuator (4) with attaching parts. Torque nut 160 to 210 inch-pounds. (QA)

(7) Remove stop bolt (36, detail C) and adjust washers (38 and 39) under bolt until gaps in steps ad and ae are in tolerance.

(8) Install stop bolt (36), washers (37 and 38) and nut (39).

(9) Remove bolt (22, detail B).

ag. If washers (37 and 38, detail C) under stop bolt (36) were adjusted in step af, do substeps below:

(1) Remove lockwire and loosen jamnuts on inflight refueling probe retract limit switch (view C).

(2) Adjust inflight refueling probe retract limit switch to the maximum aft position.

(3) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

(4) Set up cockpit digital display indicator for displays (A1-F18AC-LMM-000) and wait 25 seconds for PROBE UNLK caution to appear.

(5) Advance limit switch until PROBE UNLK caution goes out, then advance inflight refueling probe retract limit switch one more turn.

(6) Turn off cockpit digital display indicator (A1-F18AC-LMM-000).

(7) On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

(8) Tighten jamnuts on limit switch and safety with lockwire. (QA)

ah. Install bolt (22, detail B) through bellcrank actuator (4), inflight refueling probe actuating cylinder assembly rod end and connecting link (5). Torque nut 160 to 210 inch-pounds. (QA) If bellcrank assembly (1) contacts structure, remove lockwire and rotate inflight refueling probe actuating cylinder assembly in 1/4 turn increments until there is clearance.

ai. Remove lockwire, loosen jam nut, and adjust connecting link (6, detail B) to its shortest length to prevent probe from contacting structure.

aj. Tighten jamnut on connecting link (6) and install bolt (18) and attaching parts through link (6) and actuator bellcrank (7). Torque nut 60 to 85 inch-pounds. (QA)

ak. Remove bumper (41, detail D) bolts and lift bumper (41) off serrated plate.



Make sure probe door connecting link will not jam against structure when probe is cycled.

al. Position and secure connecting link (3, detail A) so it will not jam against structure.

am. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

an. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

ao. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

ap. Using inflight refueling probe position template, inspect for a gap of 0.52 to 0.58 inch between forward adapter and moldline. See details E and F.

aq. If gap in step ap was within tolerance, do step at.

ar. If gap in step ap was out of tolerance, do sub-steps below;

(1) Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

(2) On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

(3) Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

(4) Remove bolt (18, detail B), bushing (23) and attaching parts.

(5) Loosen jamnut on connecting link (6) and extend link 1 or 1/2 turn as required to put moldline gap within tolerance.

(6) Tighten connecting link (6) jamnut.

(7) Install bolt (18) and attaching parts. Torque nut 60 to 85 inch-pounds. (QA)

(8) Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

(9) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

(10) Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

as. Repeat steps ap, aq, or ar.

at. Turn on external hydraulic power (A1-F18AC-LMM-000).

au. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

av. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

aw. Position bumper (41, detail D) on serrated plate and install attaching parts handtight.

ax. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

ay. On cockpit FUEL control panel, set PROBE control switch to RETRACT.

az. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

ba. Inspect area between probe nozzle and structure for minimum gap of 0.03 inch (detail E).

bb. Using spring tester, pull with a force of 10 to 20 pounds on forward end of probe and look for a gap between forward adapter and bumper (41). (QA)

bc. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

bd. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

be. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

bf. Tighten bumper (41) bolts.

bg. If there was a gap in step ba, do substeps below:

(1) Remove bolt (18, detail B), bushing (23), and attaching parts.

(2) Loosen jamnut on connecting link (6).

(3) Extend connecting link (6) 1/2 turn.

(4) Tighten connecting link (6) jamnut.

(5) Install bolt (18) bushing (23) and attaching parts. Torque nut 60 to 85 inch-pounds. (QA)

(6) Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

(7) On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

(8) Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

bh. Repeat steps ba thru bg until there is no gap.

bi. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

bj. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

bk. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

bl. Remove bolt (18, detail B) and attaching parts.

bm. Loosen jamnut on connecting link (6).

bn. Preload probe assembly by increasing length of connecting link (6) by two turns.

bo. Tighten jamnut on connecting link (6).

bp. Remove screw (19), attaching parts and connecting link (6).

bq. Manually extend probe and push apex (detail G) overcenter.

br. Align holes on hinge (11 and 13, detail A) with holes on hinge supports and install pin (15), washers, and cotter pin. (QA)

bs. Install pin (17) with washers recorded in step o, and cotter pin. (QA)

bt. Install bolt (12) and attaching parts.

bu. Remove bolt (20, detail B) and attaching parts.



To prevent damage to aircraft, link must be positioned and secured to avoid jamming against structure.

bv. Position and secure link (2) to avoid jamming against structure.

bw. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

bx. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

by. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

bz. Remove lockwire and loosen jamnut on connecting link (2).

ca. With probe door (10) held tightly closed at its aft end, adjust connecting link (2) so it will connect to bellcrank assembly (1) with bellcrank actuator (4) against stop bolt (36). See detail C.



To prevent damage to aircraft, connecting link must be positioned and secured to avoid jamming against structure.

cb. Position and secure connecting link (2) to avoid jamming against structure.

cc. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

cd. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

ce. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

cf. If installed, remove lockwire then loosen jamnuts on inflight refueling probe actuating cylinder (detail B).

cg. With aft end of probe door (10) held tightly closed, turn inflight refueling probe actuating cylinder so connecting link (2) will connect to bellcrank assembly (1).

ch. Position and secure connecting link (2) so it will not jam against structure.

ci. On cockpit FUEL system control panel, set PROBE control switch to RETRACT.

cj. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

ck. Extend inflight refueling probe actuating cylinder about half way.

cl. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

cm. Preload probe door by decreasing length of connecting link (2) by 2-1/2 turns from length determined in step ca.

cn. Tighten jamnut on connecting link (2) and install bolt (20) with attaching parts. Torque nut 60 to 85 inch-pounds. Safety with cotter pin. Safety connecting link (2) with lockwire. (QA)

co. Turn on external hydraulic and electrical power (A1-F18AC-LMM-000).

cp. On cockpit FUEL system control panel, set PROBE control switch to EXTEND.

cq. Turn off external hydraulic and electrical power (A1-F18AC-LMM-000).

cr. Install connecting link (6) with bolts (18) and screw (19) and attaching parts. Torque nuts 60 to 85 inch-pounds. (QA)

cs. Inspect that centerlines of actuator bellcrank (7, detail G) and connecting link (8) are in a straight line ± 0.10 inch. (QA)

NOTE

If connecting link and actuator bellcrank centerlines are out of tolerance, it is preferred that apex be positioned forward of centerline rather than aft.

ct. If apex is too far forward, do substeps below:

(1) Loosen jamnut and reduce length of inflight refueling probe actuating cylinder a maximum of 1/2 turn.

(2) Tighten inflight refueling probe actuating cylinder jamnut.

cu. If apex is too far aft, do substeps below:

(1) Remove bolt (18, detail B) and attaching parts.

(2) Loosen jamnut and extend length of connecting link (6) a maximum of one turn.

(3) Tighten jamnut on connecting link (6).

(4) Install bolt (18) and attaching parts.

cv. Torque bolt (18) 60 to 85 inch-pounds and safety with cotter pin. Safety connecting link (6) with lockwire. (QA)

cw. Torque bolt (22) 160 to 210 inch-pounds and safety with cotter pin. Safety connecting link (5) and inflight refueling probe actuating cylinder assembly with lockwire. (QA)

cx. On 161353 THRU 161528, prepare mating surfaces of connecting link (8, configuration X) and floodlight (31) for electrical bonding (A1-F18AC-LMM-000).

cy. Install floodlight (31) and attaching parts.

cz. Remove nut (27) and washer (29).

da. If tubing (35) needs to be replaced, do substeps below:

(1) Cut tubing (35) to length required.

(2) Drill 1/8 inch drain hole at low point in tubing (35).

db. Install tubing (35) and wire bundle with washers and nuts.

dc. Install nut (27) and washer (29). Torque nut (27) 95 to 110 inch-pounds and safety with cotter pin (28). (QA)

dd. On no. 8 circuit breaker panel assembly, close EMER IFR circuit breaker.

de. Close door 10L (A1-F18AC-LMM-010).

df. Install inflight refueling probe fairing (WP085 00).

dg. Install door 104 (A1-F18AC-LMM-010).

2. ILLUSTRATED PARTS BREAKDOWN.

3. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

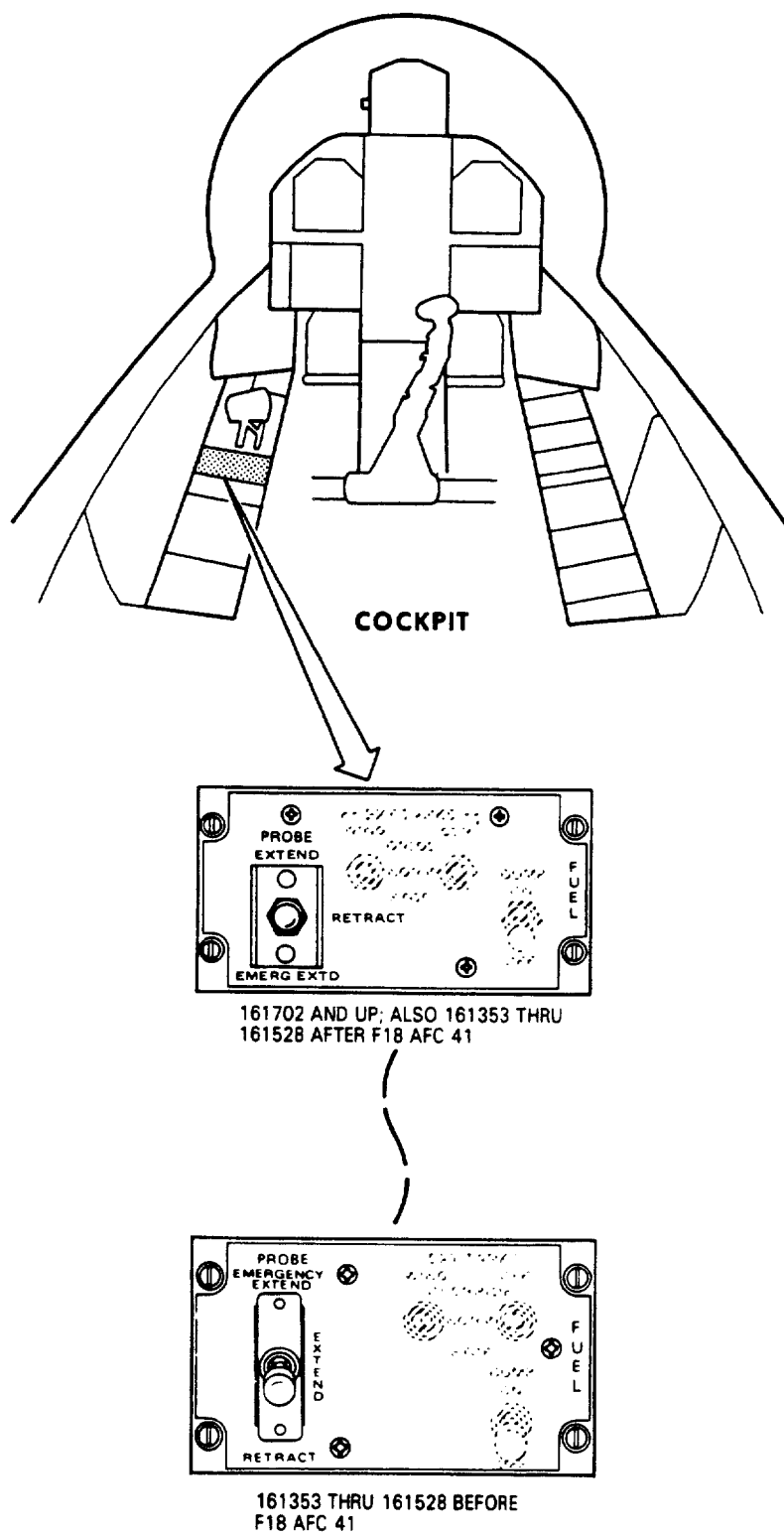


Figure 1. Inflight Refueling Probe (Sheet 1)

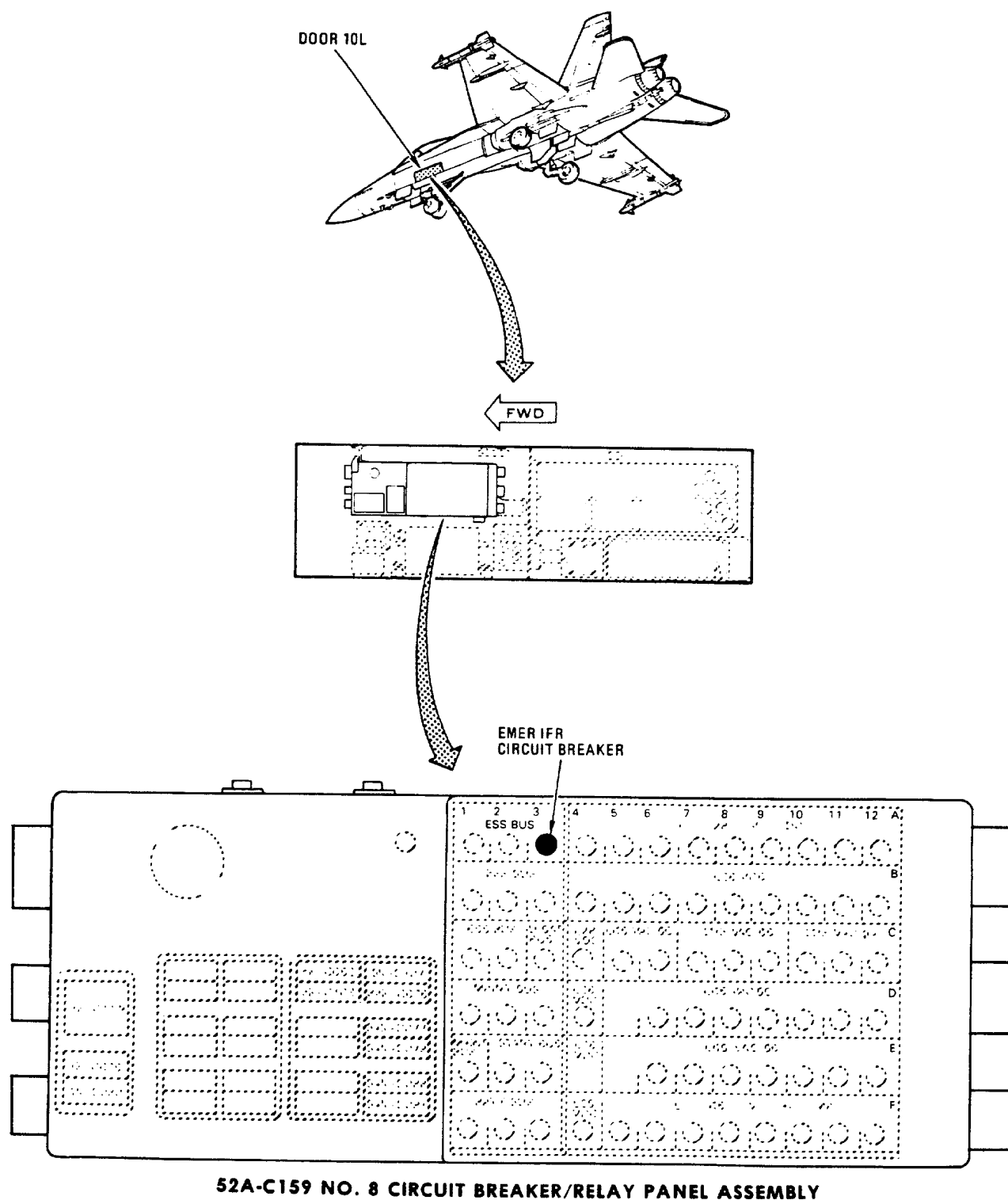


Figure 1. Inflight Refueling Probe (Sheet 2)

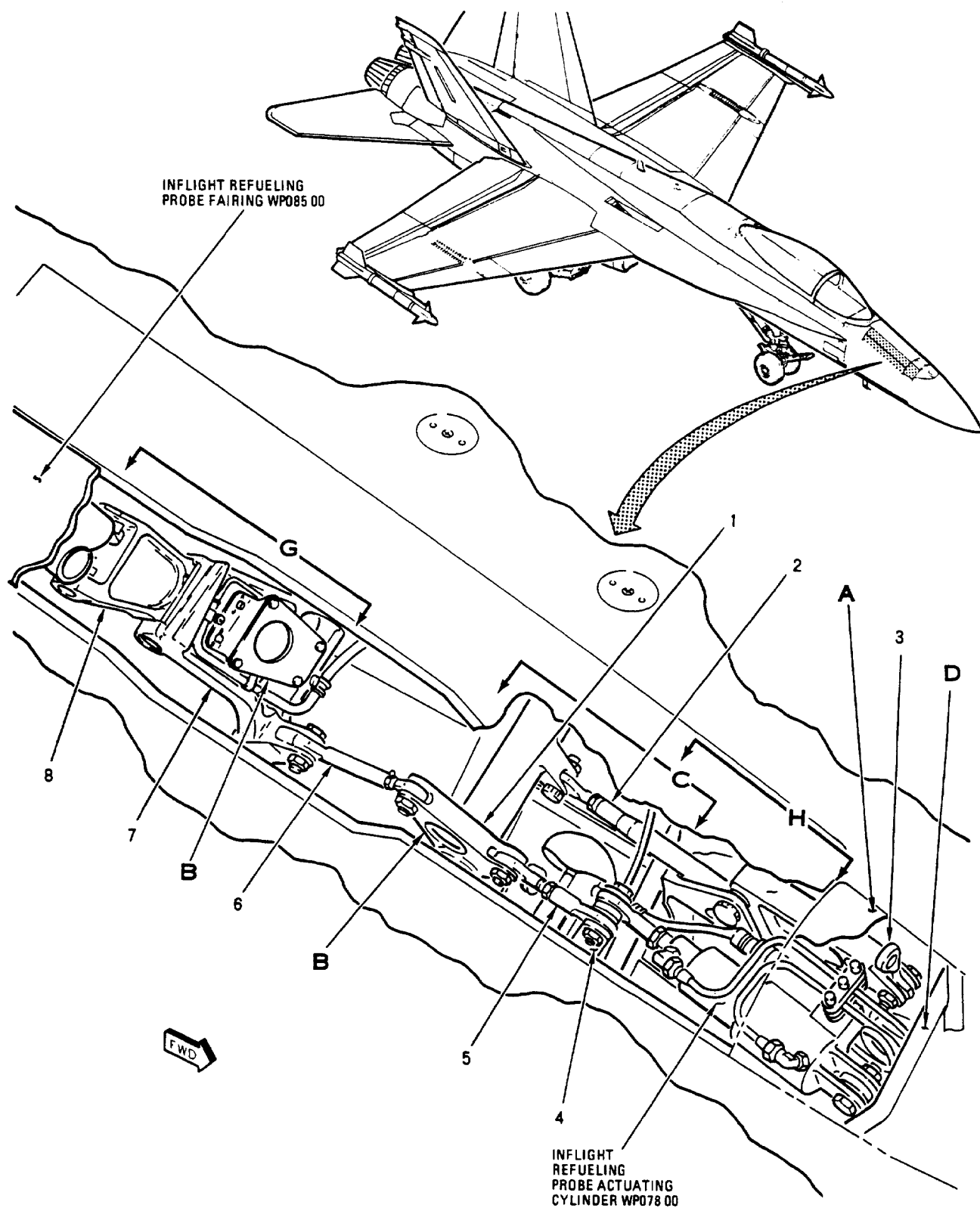


Figure 1. Inflight Refueling Probe (Sheet 3)

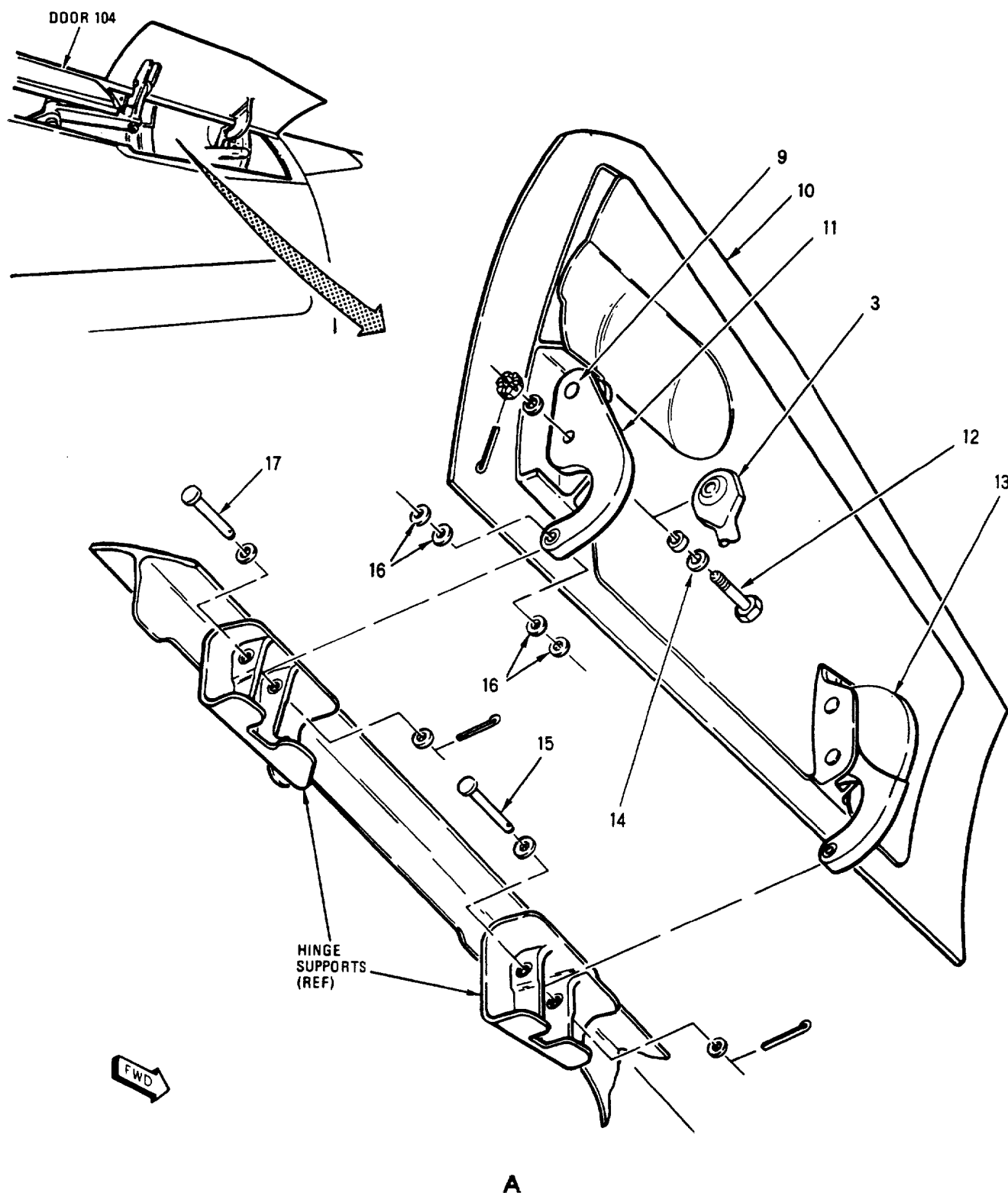
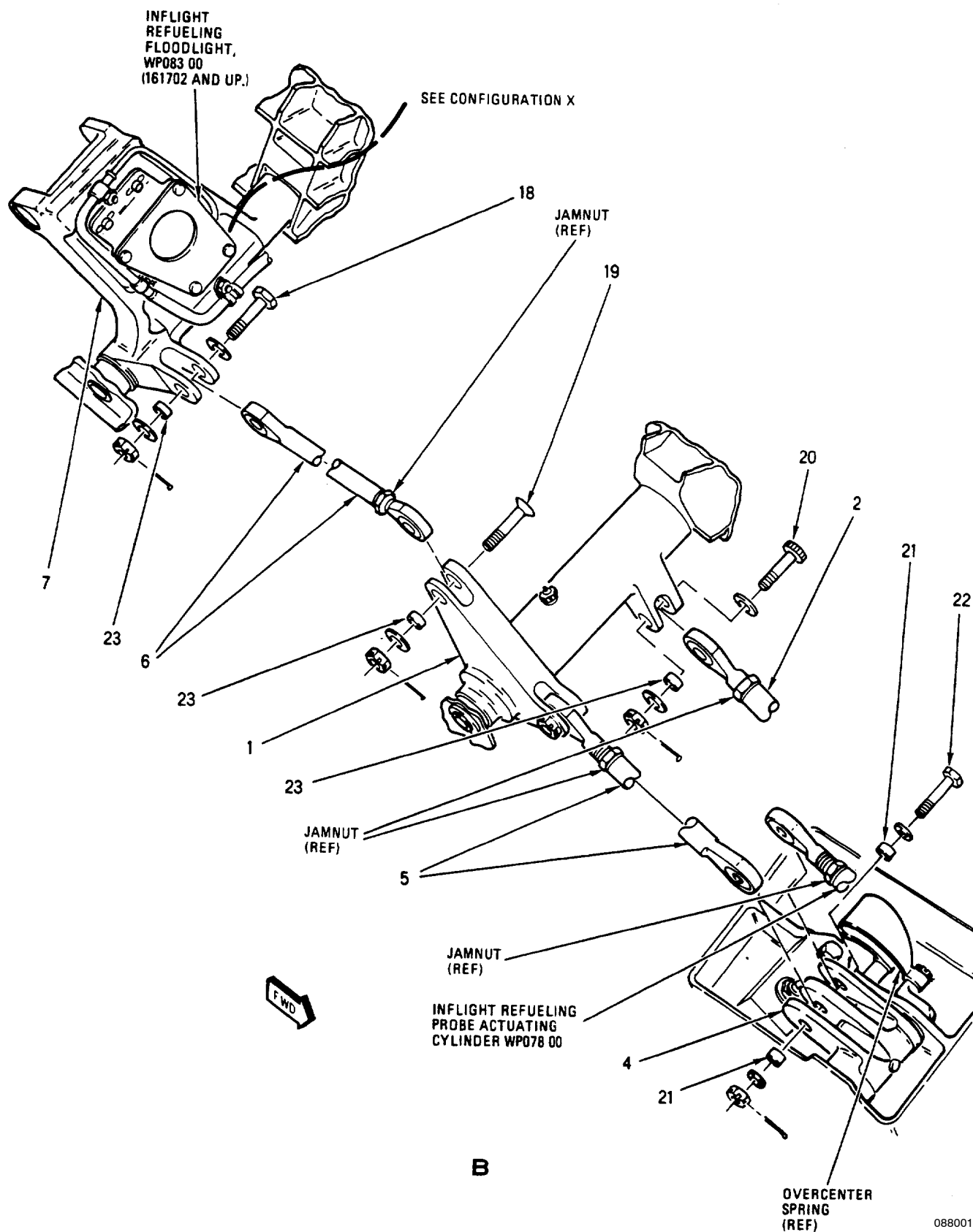
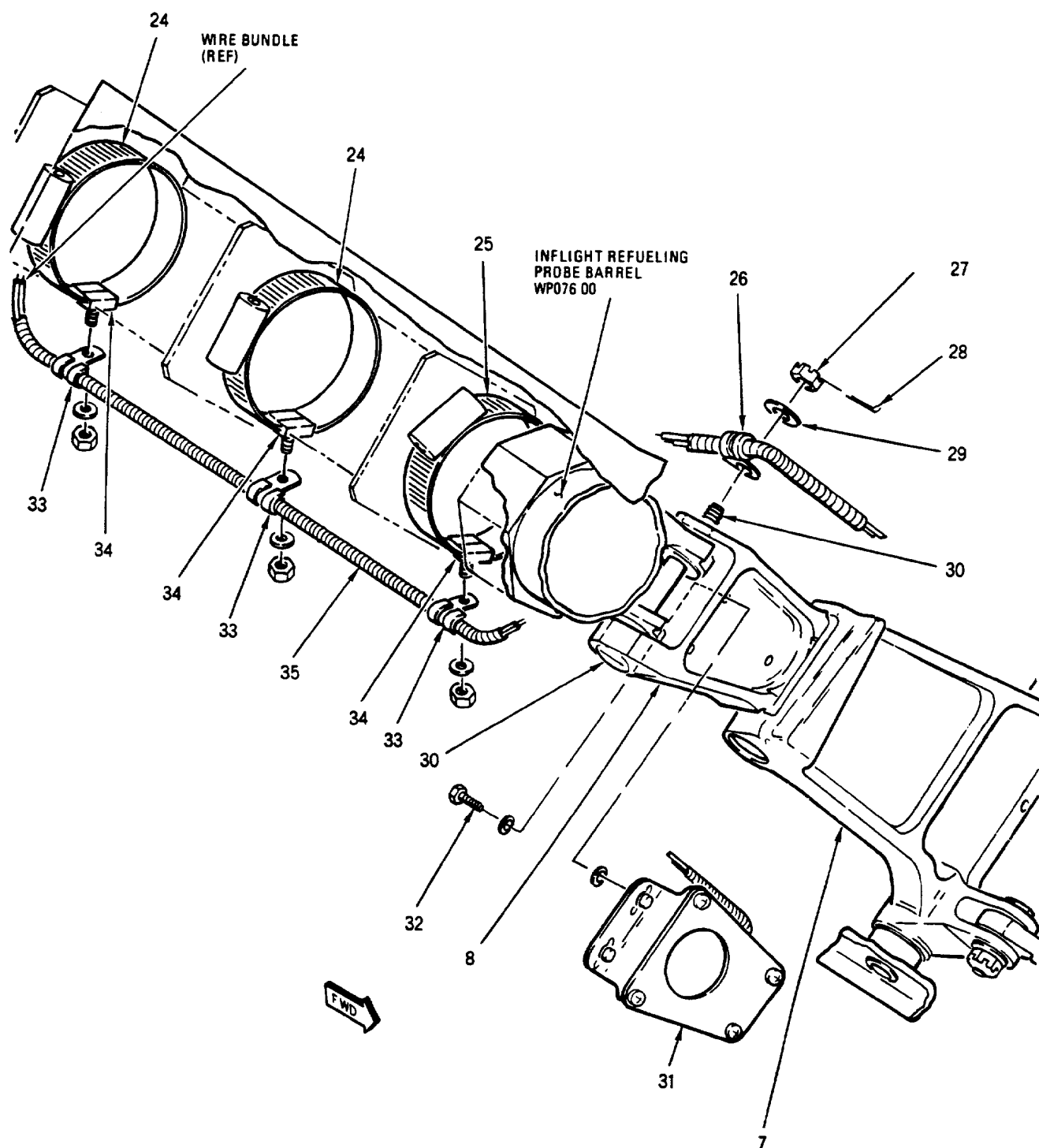


Figure 1. Inflight Refueling Probe (Sheet 4)



08800105

Figure 1. Inflight Refueling Probe (Sheet 5)



CONFIGURATION X
161353 THRU 161528

Figure 1. Inflight Refueling Probe (Sheet 6)

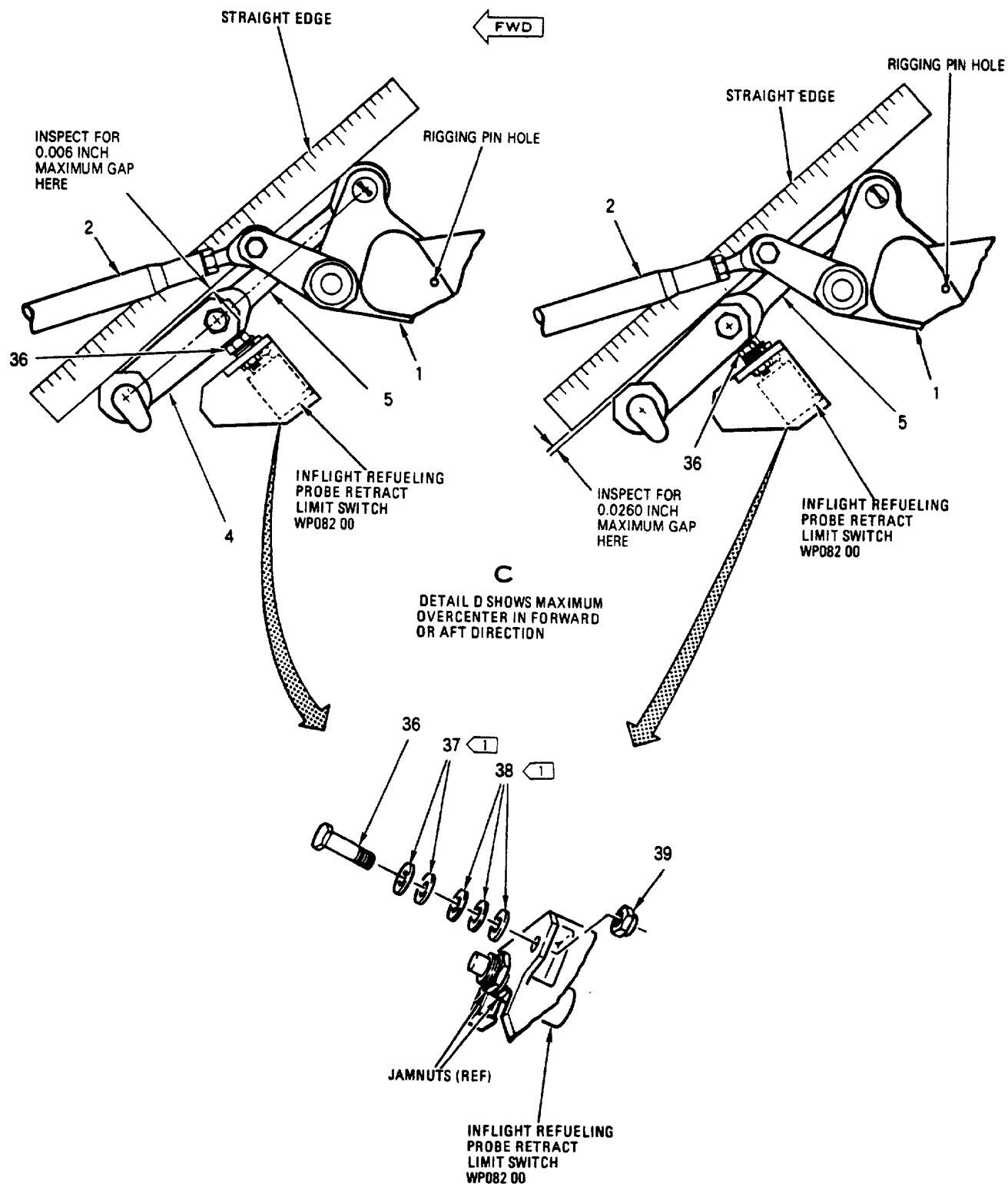


Figure 1. Inflight Refueling Probe (Sheet 7)

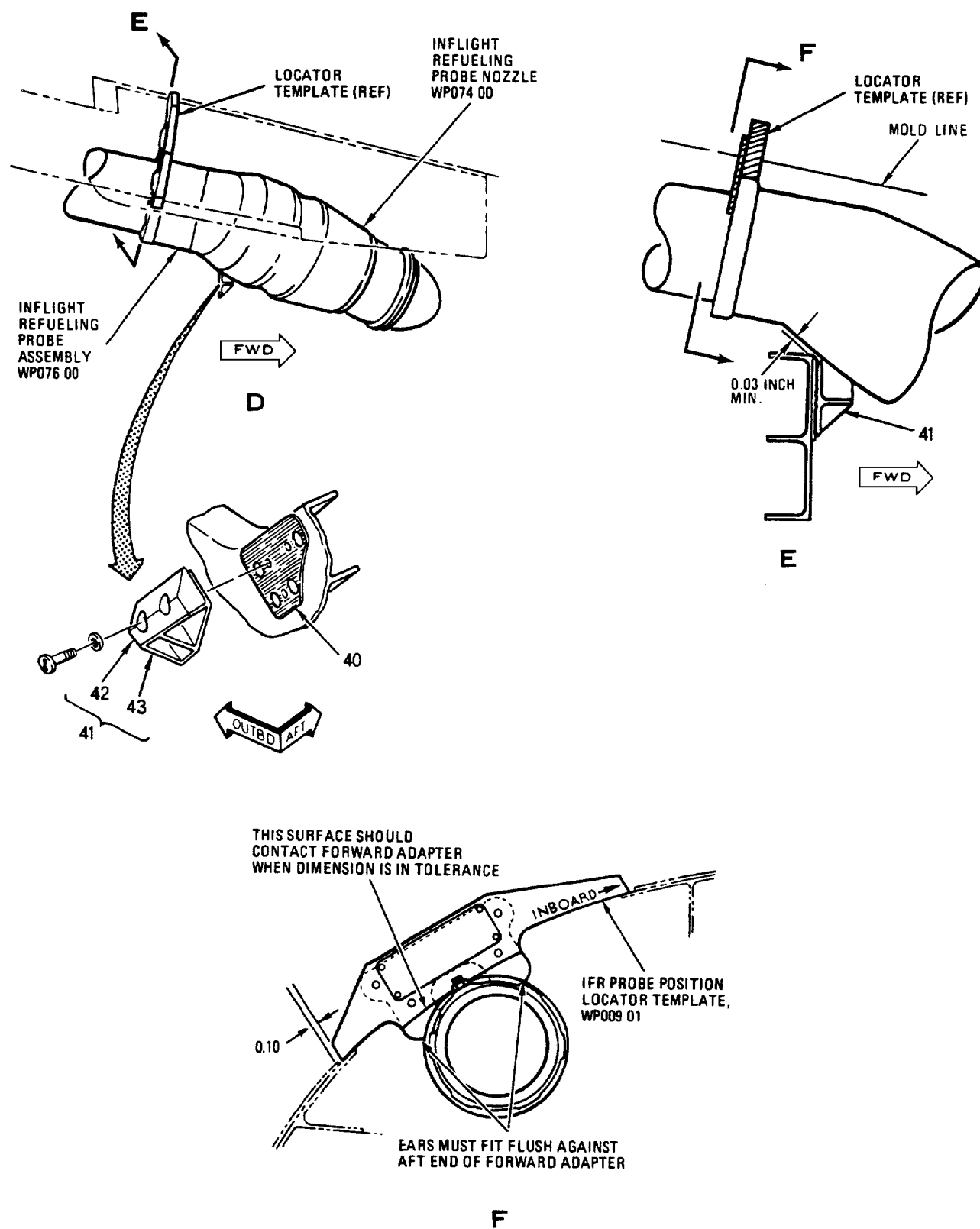
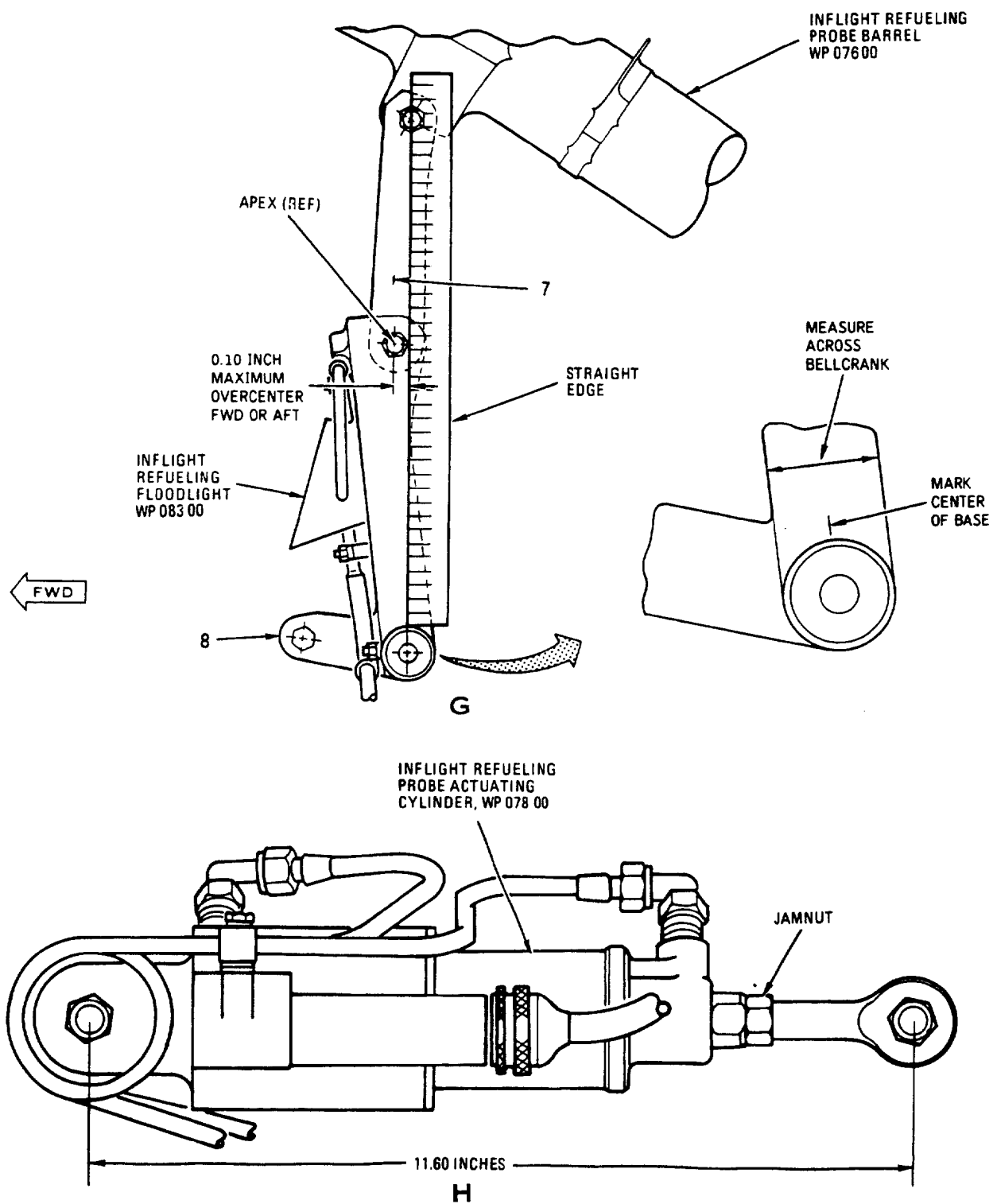


Figure 1. Inflight Refueling Probe (Sheet 8)



LEGEND

1 ADD WASHERS AS REQUIRED

Figure 1. Inflight Refueling Probe (Sheet 9)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		INFLIGHT:REFUELING PROBE									
1	74A661207-1003	.	BELLCRANK - TIMER, IN-FLIGHT						1		PBOGG
			REFUEL PROBE (76301)								
	74A661207-1001	.	BELLCRANK - TIMER, IN-FLIGHT						1	*	PBOGG
			REFUEL PROBE (76301) (DRILL ON INSTALLATION)								
2	SR11574A115	.	CONNECTING LINK, RIGID -						1		PBOZZ
			MECHANISM, IFR (97393) (MCDONNELL SPEC 74J668000-115) (REPLACES SR11574A113)								
	SR11574A113	.	CONNECTING LINK, RIGID -						1		PBOZZ
			MECHANISM, IFR/NLG/CANOPY (97393) (MCDONNELL SPEC 74J668000-113) (USE UNTIL EXHAUSTED)								
3	74A661260-1001	.	CONNECTING LINK, RIGID - DOOR						1		PAOZZ
			IN-FLT-RFL (76301)								
4	74A661245-2009	.	BELLCRANK - ACTUATOR, IN-FLIGHT						1		PAOZZ
			REFUEL PROBE (76301) (DRILL ON INSTALLATION)								
5	74A661262-1001	.	CONNECTING LINK, RIGID - DRIVE,						1		PAOZZ
			IN-FLT RFL PROBE (76301)								
6	74A661261-1001	.	CONNECTING LINK RIGID - DRIVE,						1		PAOZZ
			IN-FLT RFL PROBE (76301)								
7	74A661228-1001	.	BELLCRANK - REFUEL						1		XBOGG
			ACTUATOR (76301)								
8	74A661229-1001	.	CONNECTING LINK, RIGID -						1		XBOGG
			IN-FLIGHT REFUELING PROBE (76301)								
9	NAS2606V08	.	PIN						1		PAOZZ
	NAS1080AG06	.	COLLAR (USE WITH INDEX 9)						1		PAOZZ
10	74A313207-1003	.	DOOR, ACCESS - IN-FLT RFL PROBE,						1		PAOGG
			FUS NOSE SECT, FWD, ASSY OF (INFLIGHT REFUELING PROBE DOOR) (76301) (5MAB546)								
	74A313207-1001	.	DOOR, ACCESS - IN-FLT RFL PROBE,						1	*	PAOGG
			FUSE NOSE SECT, FWD, ASSY OF (INFLIGHT REFUELING PROBE DOOR) (76301) (5MAB546)								
11	74A313023-1005	.	OFFSET HINGE ASSY - IFR PROBE DOOR,						1		PAOZZ
			AFT (76301)								
12	NAS6304U20D	.	BOLT						1		PAOZZ
	AN960C416L	.	WASHER (USE WITH INDEX 12)						2		PAOZZ
	74640C4	.	NUT, PLAIN, SLOTTED, HEXAGON						1	*	PAOZZ
			(56878) (MCDONNELL SPEC ST3M404C4) (USE WITH INDEX 12)								
	E10080-4	.	NUT, PLAIN, SLOTTED, HEXAGON						1	*	PAOZZ
			(72962) (MCDONNELL SPEC ST3M404C4) (USE WITH INDEX 12)								
	ST3M404C4	.	NUT, PLAIN, SLOTTED, HEXAGON						1	*	PAOZZ
			(92595) (MCDONNELL SPEC ST3M404C4) (USE WITH INDEX 12)								

Figure 1. Inflight Refueling Probe (Sheet 10)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
13	MS24665-229	.	PIN, COTTER (USE WITH INDEX 12)	.....					1		PAOZZ
	74A313025-1001	.	OFFSET HINGE ASSY - IFR PROBE	.....					1		PAOZZ
			DOOR, FWD (76301) (DRILL ON INSTALLATION)								
14	ST4M166-4-002	.	BUSHING (76301)	.....					1		PAOZZ
15	3M39C2-27	.	PIN (76301)	.....					1		PAOZZ
	AN960C10L	.	WASHER (USE WITH INDEX 15)	.....					2		PAOZZ
	MS24665-153	.	PIN, COTTER (USE WITH INDEX 15)	.....					1		PAOZZ
16	NAS1515M3L	.	WASHER	.....					4		PAOZZ
17	3M39C2-33	.	PIN (76301)	.....					1		PAOZZ
	AN960C10L	.	WASHER (USE WITH INDEX 17)	.....					2		PAOZZ
	MS24665-153	.	PIN, COTTER (USE WITH INDEX 17)	.....					1		PAOZZ
18	NAS6305U12D	.	BOLT	.....					1		PAOZZ
	AN960C516L	.	WASHER (USE WITH INDEX 18)	.....					2		PAOZZ
	74640C5	.	NUT, PLAIN, SLOTTED, HEXAGON (56878) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 18)	.....					1	*	PAOZZ
	E10080-5	.	NUT, PLAIN, SLOTTED, HEXAGON (72962) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 18)	.....					1	*	PAOZZ
	ST3M404C5	.	NUT, PLAIN, SLOTTED, HEXAGON (92595) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 18)	.....					1	*	PAOZZ
19	MS24665-229	.	PIN, COTTER (USE WITH INDEX 18)	.....					1		PAOZZ
	HT4049-5D13	.	SCREW, CLOSE TOLERANCE (56878) (MCDONNELL SPEC ST3M714-5D13)	.....					1		PAOZZ
	AN960C516L	.	WASHER (USE WITH INDEX 19)	.....					1		PAOZZ
	E10080-5	.	NUT, PLAIN, SLOTTED, HEXAGON (72962) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 19)	.....					1	*	PAOZZ
	74640C5	.	NUT, PLAIN, SLOTTED, HEXAGON (56878) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 19)	.....					1	*	PAOZZ
	ST3M404C5	.	NUT, PLAIN, SLOTTED, HEXAGON (92595) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 19)	.....					1	*	PAOZZ
20	MS24665-153	.	PIN, COTTER (USE WITH INDEX 19)	.....					1		PAOZZ
	AIC687-5D15	.	BOLT, CLOSE TOLERANCE (06725) (MCDONNELL SPEC ST3M744-5D15)	.....					1	*	PAOZZ
	MB154-5D15	.	BOLT, CLOSE TOLERANCE (73197) (MCDONNELL SPEC ST3M744-5D15)	.....					1	*	PAOZZ
	VS3174-5D15	.	BOLT, CLOSE TOLERANCE (92215) (MCDONNELL SPEC ST3M744-5D15)	.....					1	*	PAOZZ
	VCG0001-5D15	.	BOLT, CLOSE TOLERANCE (06710) (MCDONNELL SPEC ST3M744-5D15)	.....					1	*	PAOZZ
	122895-5D15	.	BOLT, CLOSE TOLERANCE (80539) (MCDONNELL SPEC ST3M744-5D15)	.....					1	*	PAOZZ
	PBF1265-5D15	.	BOLT, CLOSE TOLERANCE (27624) (MCDONNELL SPEC ST3M744-5D15)	.....					1	*	PAOZZ
	S406-5D15	.	SEE ABOVE (97928)	.....					1	*	PAOZZ
	AN960C516L	.	WASHER (USE WITH INDEX 20)	.....					2		PAOZZ
	74640C5	.	NUT, PLAIN, SLOTTED, HEXAGON (56878) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 20)	.....					1	*	PAOZZ
	E10080-5	.	NUT, PLAIN, SLOTTED, HEXAGON (72962) (MCDONNELL SPEC ST3M404C5) (USE WITH INDEX 20)	.....					1	*	PAOZZ

Figure 1. Inflight Refueling Probe (Sheet 11)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	ST3M404C5	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(92595) (MCDONNELL SPEC								
			ST3M404C5) (USE WITH INDEX 20)								
	MS24665-229	.	PIN, COTTER (USE WITH INDEX 20)	.....					1		PAOZZ
21	ST4M166-6-004	.	BUSHING (76301)	.....					2		PAOZZ
22	NAS6306U26D	.	BOLT	.....					1		PAOZZ
	AN960C616L	.	WASHER (USE WITH INDEX 22)	.....					2		PAOZZ
	MS24665-229	.	PIN, COTTER (USE WITH INDEX 22)	.....					1		PAOZZ
	74640C6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(56878) (MCDONNELL SPEC								
			ST3M404C6) (USE WITH INDEX 22)								
	E10080-6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(72962) (MCDONNELL SPEC								
			ST3M404C6) (USE WITH INDEX 22)								
	ST3M404C6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(92595) (MCDONNELL SPEC								
			ST3M404C6) (USE WITH INDEX 22)								
23	ST4M166-5-0035	.	BUSHING (76301)	.....					3		PAOZZ
24	AN737TW91	.	CLAMP	.....					2	A	PAOZZ
25	AN737TW98	.	CLAMP	.....					1	A	PAOZZ
26	TA612WD5	.	CLAMP (84971) (MCDONNELL	.....					1	A*	PAOZZ
			SPEC 9M636D5)								
	1445WD5N	.	SEE ABOVE (83930)	.....					1	A*	PAOZZ
	TA612WD5	.	SEE ABOVE (84971)	.....					1	A*	PAOZZ
	1445WD5N	.	SEE ABOVE (83930)	.....					1	A*	PAOZZ
27	E10080-6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(72962) (MCDONNELL SPEC ST3M404C6)								
	74640C6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(56878) (MCDONNELL SPEC ST3M404C6)								
	ST3M404C6	.	NUT, PLAIN, SLOTTED, HEXAGON	.....					1	*	PAOZZ
			(92595) (MCDONNELL SPEC ST3M404C6)								
28	MS24665-229	.	PIN, COTTER	.....					1		PAOZZ
29	AN960C616L	.	WASHER	.....					1		PAOZZ
30	HT4049-6D48	.	SCREW, CLOSE TOLERANCE	.....					1		PAOZZ
			(73197) (MCDONNELL SPEC								
			ST3M714-6D48)								
31	30-1184-3 +	.	FLOODLIGHT, ELECTRICAL -	.....					1		PAOOO
			IN-FLIGHT REFUELING,								
			AIRCRAFT (INFLIGHT REFUELING								
			FLOODLIGHT) (72914) (MCDONNELL								
			SPEC 74-790060-111) (50DSB008)								
32	NAS1303-7H	.	BOLT	.....					3		PAOZZ
	AN960JD10	.	WASHER (USE WITH INDEX 32)	.....					6		PAOZZ
33	MS21919WDF6	.	CLAMP	.....					3	A	PAOZZ
34	NK1003696-05	.	LUG ASSEMBLY - BAND CLAMP	.....					3	A	PAOZZ
			(98625) (MCDONNELL								
			SPEC ST9M504-1)								
	AN960JD10	.	WASHER (AP) (USE WITH INDEX 34)	.....					3		PAOZZ
	MS21042L3	.	NUT (AP) (USE WITH INDEX 34)	.....					3		PAOZZ
35	M81914/4-1202 #	.	TUBING	.....					1	A	XBOZZ
36	NAS428-4-7	.	BOLT (STOP BOLT)	.....					1		PAOZZ
37	AN960-416L	.	WASHER	.....					AR		PAOZZ
38	AN960-416	.	WASHER	.....					AR		PAOZZ
39	MS21042L4	.	NUT	.....					1		PAOZZ
40	74A661266-2005	.	PLATE BUMPER, ADJUSTABLE -	.....					1		XBOZZ
			IN-FLT RFL PROBE (76301)								
	74A313002-2005	.	RETAINER ASSY (76301) (USE	.....					1		XBOOO
			WITH INDEX 40)								
	MS20426AD4 #	.	RIVET (AP)	.....					4		-

Figure 1. Inflight Refueling Probe (Sheet 12)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	74A313002-2007	.						RETAINER (USE WITH INDEX 40)	1		XBOZZ
41	74A661265-1003	.						BUMPER ASSY - ADJ, IN-FLT RFL	1		XBOOO
		.						PROBE (76301)			
42	74A661269-2001	.						BUMPER RUBBER - ADJ. BRKT,	1		PAOZZ
		.						IN-FLT-RFL (76301)			
	NAS673V5	.						BOLT (AP)	2		PAOZZ
	AN960C10L	.						WASHER (AP)	2		PAOZZ
	MS21056L3	.						NUT, PLATE (ON RETAINER)	2		PAOZZ
	NAS1097AD3 #	.						RIVET (AP)	2		-
43	74A661264-2005	.						BRACKET - BUMPER ADJ.-IN-FLT	1		XBOZZ
		.						RFL PROBE (76301)			
	NAS673V5	.						BOLT	1		PAOZZ
	AN960C10L	.						WASHER	1		PAOZZ
	MS21060L3	.						NUT, PLATE (ON RETAINER)	1		PAOZZ
	NAS1097AD3 #	.						RIVET (AP)	2		-

+ FLOODLIGHT IS MOVED TO NEW
LOCATION 161702 & UP. NEW
LOCATION DOES NOT REQUIRE
REMOVAL FOR THIS PROCEDURE.

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161528	F/A-18A/B

Figure 1. Inflight Refueling Probe (Sheet 13)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

AIRCRAFT FUEL TANK FPU-6/A AND FPU-8/A
(5CAY621 AND 5CAY669)

EXTERNAL FUEL SYSTEM

This WP supersedes WP089 01 dated, 1 September 1999.

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Airborne Weapon/Stores Loading Manual	A1-F18AE-LWS-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Illustrated Parts Breakdown	2
Illustration	3
Parts List	4
Installation	1
Materials Required	1
Removal	1
Repair	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

See A1-F18AE-LWS-000 for Support Equipment Required.

1. REMOVAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

Materials Required

None

b. Defuel external tank (A1-F18AC-PCM-000).

c. Drain residual fuel (A1-F18AC-PCM-000).

NOTE

Required Support Equipment must be used.

WARNING

External tank must be empty before removal.

d. Verify that external fuel tank is empty. For external tank FPU-8/A, open fuel filler cap and visually inspect inside tank.

e. Remove external fuel tank per Airborne Weapon/Stores Loading Manual (A1-F18AE-LWS-000).

2. INSTALLATION.

a. Install external fuel tank per Airborne Weapon/Stores Loading Manual (A1-F18AE-LWS-000).

b. Do external fuel tanks transfer test (A1-F18AC-LMM-000).

3. REPAIR.

a. Repair fuel tank by removing/installing external fuel tank components:

(1) Drain Valve (WP066 00).

(2) Drywell Door (Cylindrical Tank) (WP090 05).

(3) External Fuel Tank Refuel/Transfer Check Valve (Cylindrical Tank) (WP090 06).

(4) Fuel and Air Probes (WP098 00).

(5) Fuel Filler Cap Adapter Assembly (Cylindrical Tank) (WP089 03).

(6) Fuel Quantity Transmitter (WP096 00).

(7) Jettison Pivot Ball Adapter and Jettison Pivot (WP092 00).

(8) Lugs (Cylindrical Tank) (WP092 01).

(9) Grounding Receptacle (Cylindrical Tank) (WP090 04).

(10) Nose Cone Boot (Cylindrical Tank) (WP089 04).

4. ILLUSTRATED PARTS BREAKDOWN.

5. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

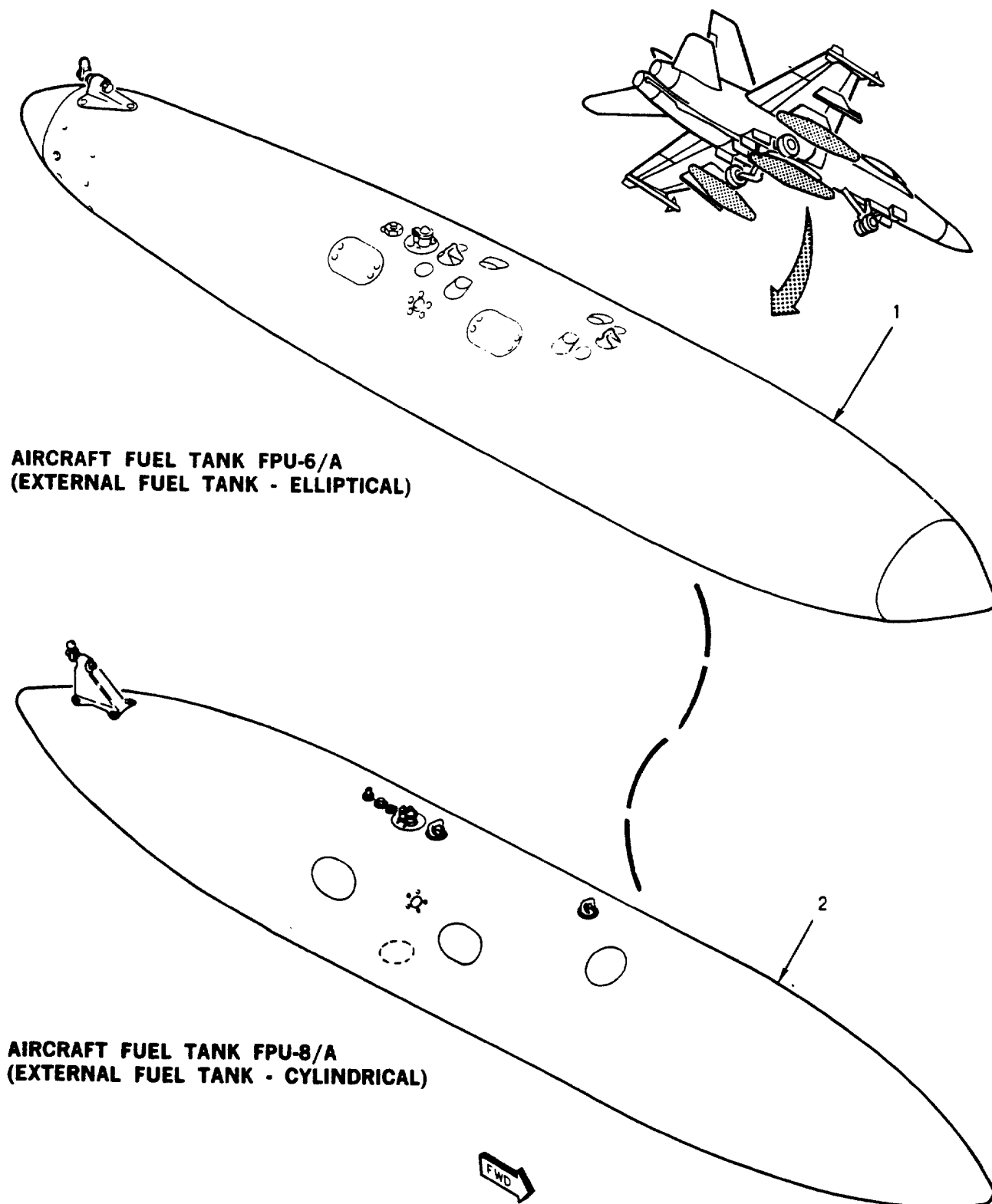


Figure 1. External Fuel Tank (5CAY621 and 5CAY669) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (5CAY621 AND 5CAY669)									
1	74A550000-1021	.	TANK, FUEL, AIRCRAFT FPU-6/A	.....					1		PAOHD
			(EXTERNAL FUEL TANK)								
			(ELLIPTICAL) (5CAY621)								
			(MCDONNELL SPEC 74-550055-101)								
2	74A551000-1005	.	TANK, FUEL, AIRCRAFT FPU-8/A)	.....					1		PAOHD
			(EXTERNAL FUEL TANK)								
			(CYLINDRICAL) (5CAY669)								

Figure 1. External Fuel Tank (5CAY621 and 5CAY669) (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL TANK JUMPER CABLE W56230
(61W-Y555)

EXTERNAL FUEL SYSTEM

Reference Material

Line Maintenance Access Doors	A1-F18AC-LMM-010
Weapons Control System	A1-F18AC-740-300
Aircraft Fuselage Centerline SUU-62/A Pylon	WP034 00
Aircraft Wing SUU-63/A Pylon	WP036 00

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Removal	2
Support Equipment Required	2
Illustrated Parts Breakdown	2
Illustration	
External Fuel Tank Jumper Cable W56230 (61W-Y555)	
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External Fuel Tank Jumper Cable W56230 (61W-Y555)	
Wing, Figure 2	6
Parts List	
External Fuel Tank Jumper Cable W56230 (61W-Y555)	
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Wing Jumper Cable	2
Installation	2
Materials Required	2
Removal	2
Support Equipment Required	2
External Fuel Tank Jumper Cable W56230 (61W-Y555)	
Wing, Figure 2	6

Record of Applicable Technical Directives

None

1. JUMPER CABLE, CENTERLINE.

Support Equipment Required

None

Materials Required

None

2. REMOVAL.

- a. Open door 510 (A1-F18AC-LMM-010).
- b. Disconnect jumper cable (1, figure 1) from external tank.
- c. Slide spring pin forward (detail C), lower end of bail bar and slide lanyard free.
- d. Disconnect jumper cable (1) from 52J-Z065 receptacle on connector plate assembly.

3. INSTALLATION.

- a. Connect jumper cable (1, figure 1) to 52J-Z065 receptacle on connector plate assembly.



To prevent damage to jumper cable, make sure lanyard is correctly positioned on bail bar and bail bar is correctly installed in support.

- b. Lower bail bar and slide lanyard over end of bail bar (detail C).
- c. Install bail bar per substeps below:
 - (1) Slide spring pin forward and hold.
 - (2) Raise bail bar into position in support.
 - (3) Release spring pin. Make sure pin is aligned with hole in support.
- d. Connect jumper cable (1) to external tank.
- e. Close door 510 (A1-F18AC-LMM-010).

4. JUMPER CABLE, WING.

Support Equipment Required

None

Materials Required

None

5. REMOVAL.

- a. Open door 502 (A1-F18AC-LMM-010).
- b. Disconnect jumper cable (1, figure 2) from external tank.
- c. Remove pin (detail C) from support and bail bar.
- d. Lower bail bar and slide lanyard free.
- e. Disconnect jumper cable (1) from 61J-W112 AIR-GND receptacle on bracket assembly.

6. INSTALLATION.

- a. Connect jumper cable (1, figure 2) to 61J-W112 AIR-GND receptacle on bracket assembly.

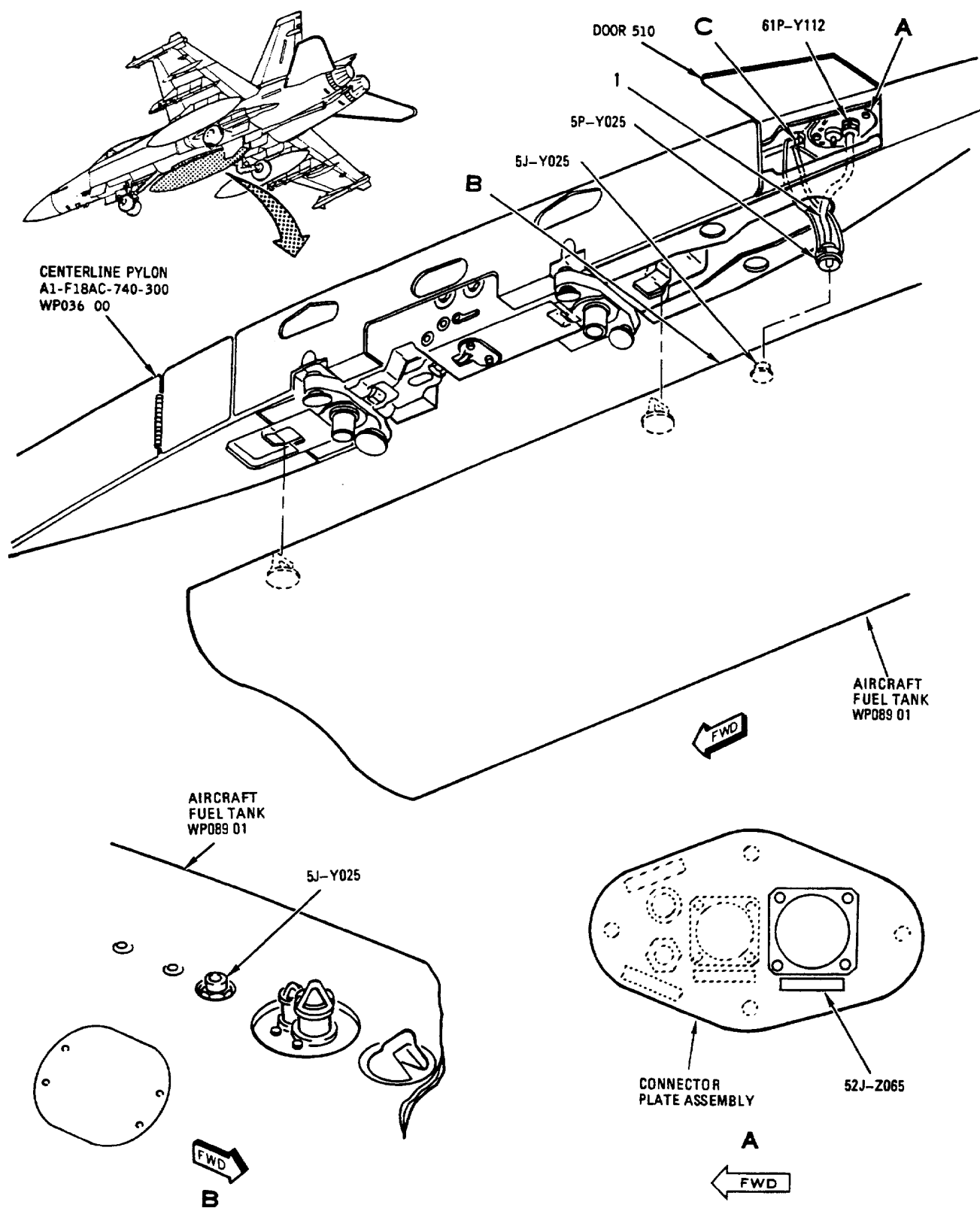
WARNING

To prevent damage to jumper cable, make sure lanyard is correctly positioned on bail bar.

- b. Lower bail bar and slide lanyard over end of bail bar (detail C).
- c. Reposition bail bar between support and install pin.
- d. Connect jumper cable (1) to external tank.
- e. Close door 502 (A1-F18AC-LMM-010).

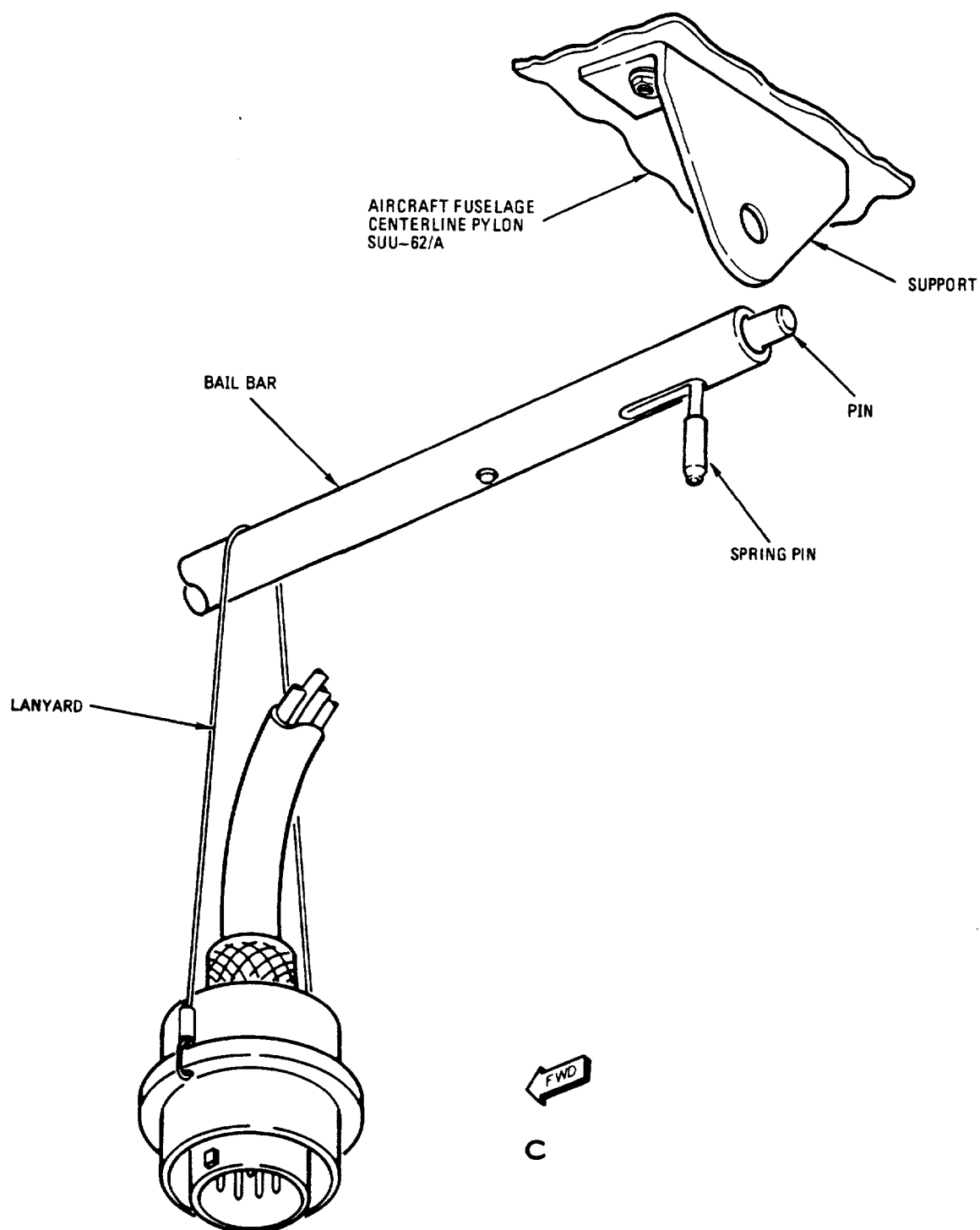
7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



08902011

Figure 1. External Fuel Tank Jumper Cable W56230 (61W-Y555), Centerline (Sheet 1)

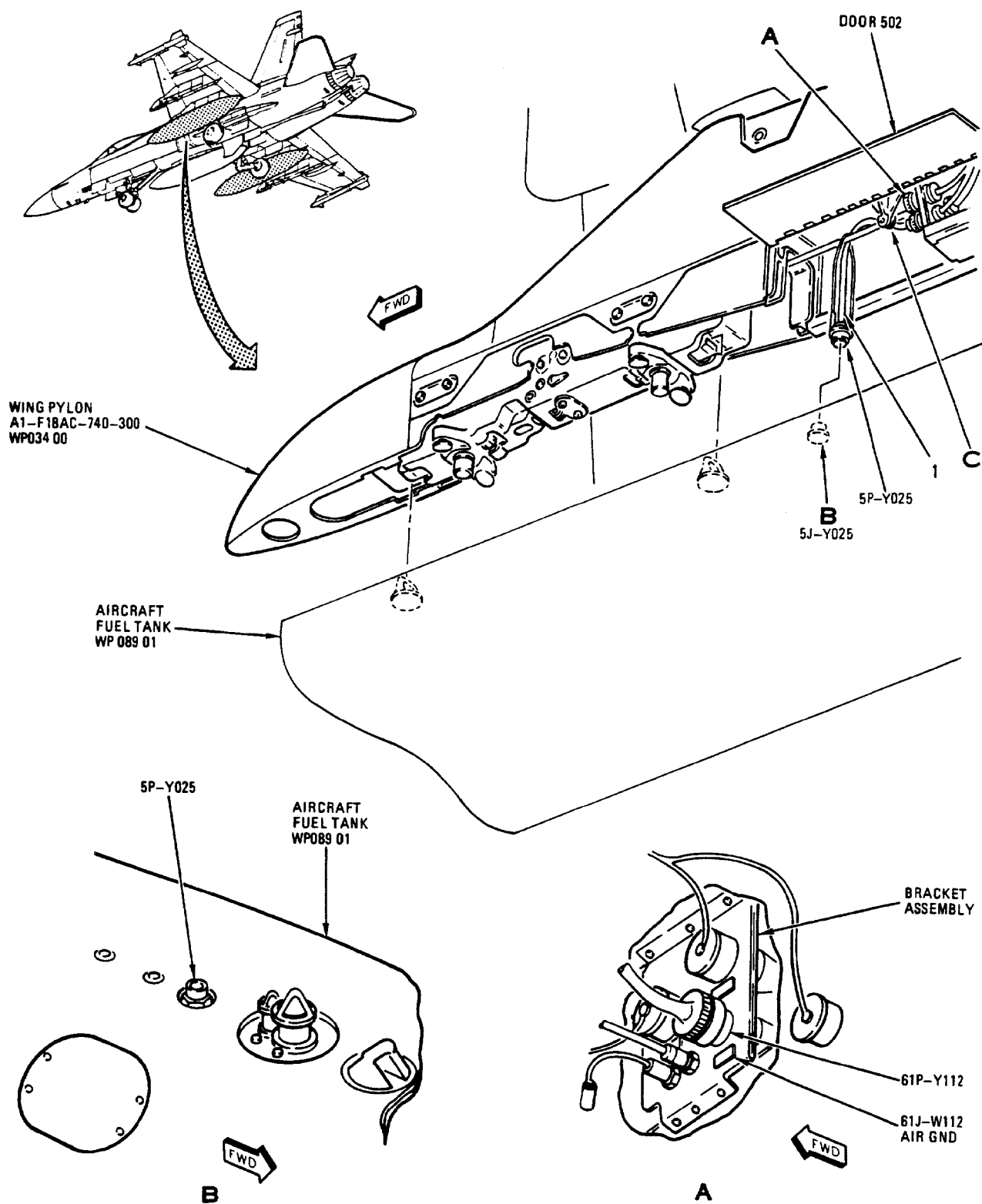


08902012

Figure 1. External Fuel Tank Jumper Cable W56230 (61W-Y555), Centerline (Sheet 2)

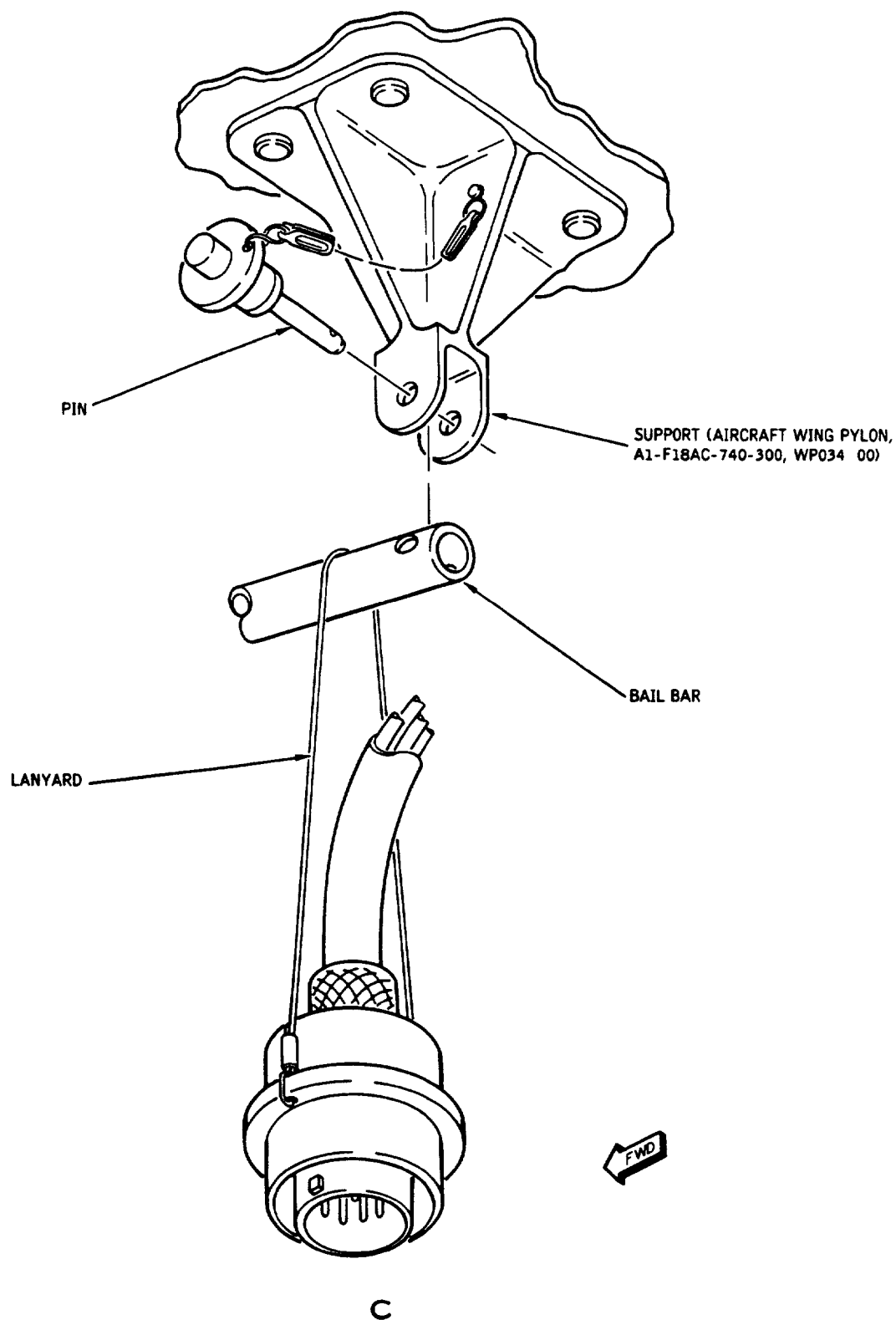
INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK JUMPER									
		CABLE W56230 (61W-Y555),									
		CENTERLINE									
1	74A756230-9AAB	.							1		PAOGG
		CABLE ASSY, ELEC - EXT TANK									
		JUMPER (W56230) (76301)									
		(EXTERNAL-FUEL TANK									
		JUMPER CABLE W5623D									
		(61W-Y555), CENTERLINE)									

Figure 1. External Fuel Tank Jumper Cable W56230 (61W-Y555), Centerline (Sheet 3)



08902021

Figure 2. External Fuel Tank Jumper Cable W56230 (61W-Y555), Wing (Sheet 1)



08902022

Figure 2. External Fuel Tank Jumper Cable W56230 (61W-Y555), Wing (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
1	74A756230-9AAB	EXTERNAL FUEL TANK JUMPER CABLE W56230 (61W-Y555), WING							1		PAOGG
		CABLE ASSY, ELEC - EXT TANK JUMPER, (W56230) (76301) (EXTERNAL FUEL TANK JUMPER CABLE W56230 (61W-Y555), WING)									

Figure 2. External Fuel Tank Jumper Cable W56230 (61W-Y555),Wing (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL TANK (CYLINDRICAL) FUEL FILLER CAP AND ADAPTER ASSEMBLY

EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Ground Support Equipment	WP009 01
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Aircraft Fuel Cells and Internal/External Tanks	NAVAIR 01-1A-35

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
Toxic and Combustible Gas Indicator	72-8001

Materials Required

Nomenclature	Specification or Part Number
Adhesive	EC-776 (CAGE 04963)
Brush, Paint-type, 1/4-1/2 inch	-
Cheesecloth	301 (CAGE 97327)

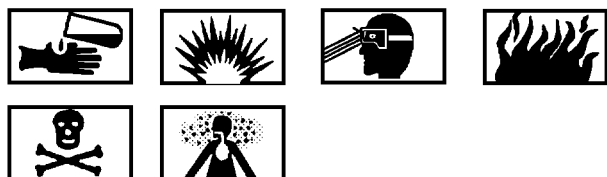
Materials Required (Cont)

Nomenclature	Specification or Part Number
Cotter Pin	MS24665-298
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)
Packing	M25988/1-338
Packing (18)	NAS1523AA3F
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Sealing Compound	93-006-6 (CAGE 71984)

1. REMOVAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. Defuel external tank (A1-F18AC-PCM-000).



Jet Fuel

1

c. Drain residual fuel (A1-F18AC-PCM-000).

d. Ground tank and exhaust blower to approved static grounds.

e. Remove door 516 (A1-F18AC-LMM-010).

f. Remove fuel filler cap (1, figure 1), packing (2) and disconnect lanyard (9) from adapter tang.

g. Purge tank until a safe indication is displayed on combustible gas indicator (WP009 01). Refer to NAVAIR 01-1A-35 for purging instructions.

h. Remove bolts (3), washers, packings (5) and cover (4).

i. Remove bolts (10) and washers, packings (5), gasket (7) and adapter (8). Remove gasket (7) and adapter (8) through door 516.

j. To prevent contamination, cover all openings.

k. On fuel filler cap (1), remove cotter pin (11) and lanyard (9).

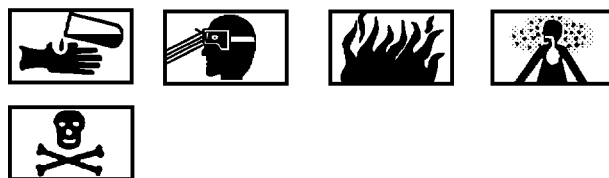
2. INSTALLATION.



Petrolatum, Technical

2

a. Lubricate new packings with petrolatum.



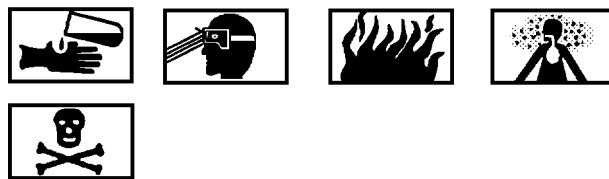
Isopropyl Alcohol

3

b. Clean mating surfaces of external tank and gasket (7, figure 1) with cheesecloth moistened in isopropyl alcohol. Before the isopropyl alcohol evaporates, wipe surface with clean, dry cheesecloth.

c. Repeat step 2b. until surfaces are visibly free of contamination.

d. Prepare external tank, adapter (8), bolt (10) and washer mating surfaces for electrical bonding (A1-F18AC-LMM-000).



Adhesive

17

e. Apply adhesive to gasket (7), and mating surfaces of external tank and adapter (8). Allow adhesive to dry until tacky.

f. Working through door 516, position adapter (8), with arrows indicating forward, inside tank with gasket (7) between tank and adapter (8).

g. Install packings (5), bolts (10) and washers.



Sealing Compound

18

h. Install cover (4) forward. Apply sealing compound under heads of bolts (3), then install packings (5), bolts (3) and washers.

i. Apply sealing compound in gaps between mating surfaces of cover (4) and external tank, and cover (4) and adapter (8).

j. Apply a sample of sealing compound to a piece of scrap metal. Keep in same area as external fuel tank.

k. Allow sealing compound to cure approximately 24 hours or until sample is rubber-like.

l. Attach lanyard (9) to adapter tang by pushing lanyard through its own end and loop to form a slip knot, then place knot over adapter tang and pull tight to secure.

m. On fuel filler cap (1), position lanyard (9) and install cotter pin (11). (QA)

WARNING

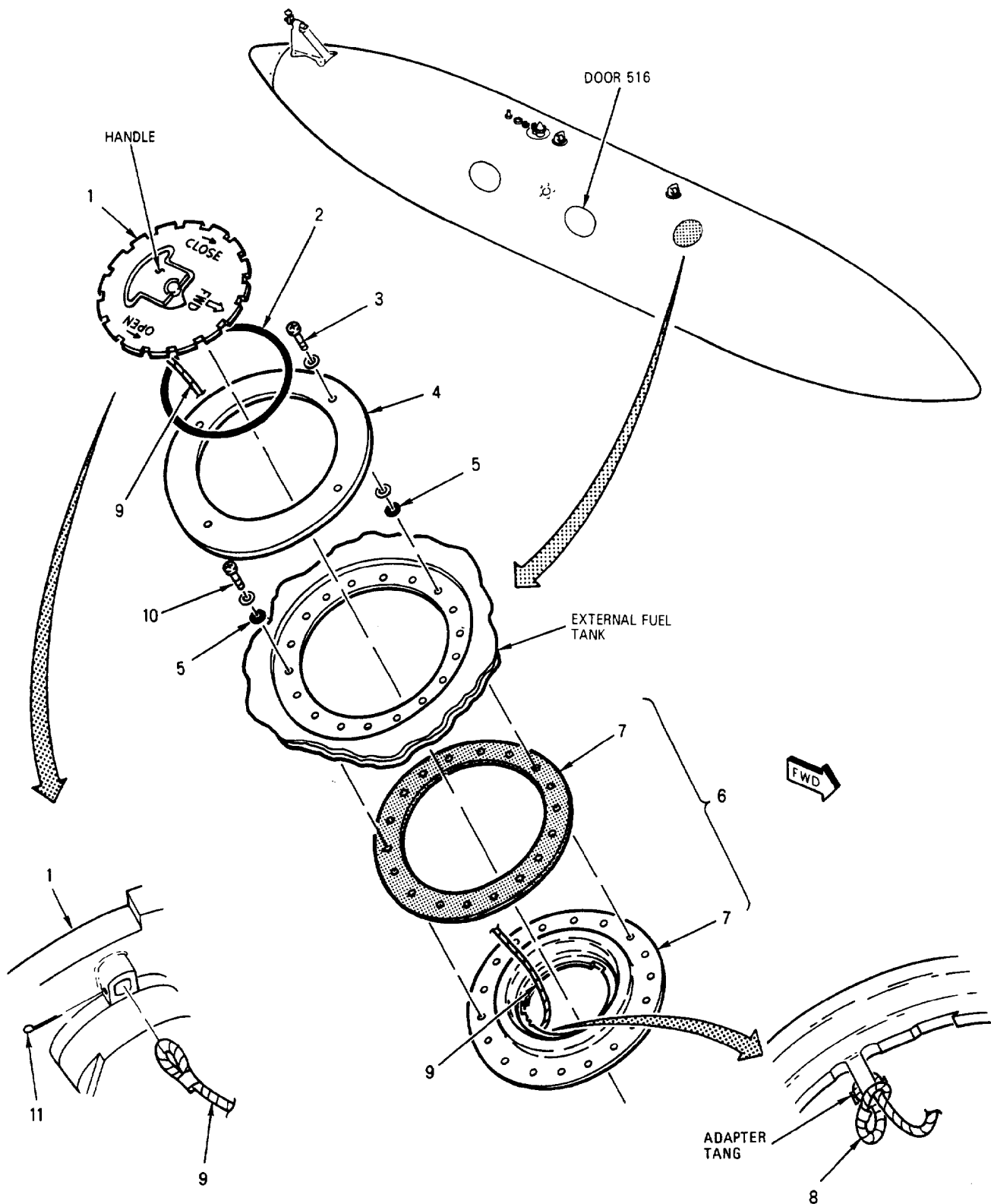
To prevent fuel leakage and possible loss of aircraft from ingestion of fuel, make sure cap arrow is pointing forward and handle is flush with cap.

n. Install packing (2) and fuel filler cap (1) with arrow pointing forward and handle down flush with cap.

o. Install door 516 (A1-F18AC-LMM-010).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



08903011

Figure 1. External Fuel Tank (Cylindrical) Fuel Filler Cap and Adapter Assembly
(Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (CYLINDRICAL)									
		FUEL FILLER CAP AND ADAPTER ASSEMBLY									
1	457-885	.	CAP, FILLER OPENING (EXTERNAL						1		PAOZZ
			FUEL TANK FUEL FILLER CAP AND ADAPTER ASSEMBLY) (99321) (MCDONNELL SPEC 74J551071-201)								
2	M25988/1-338	.	PACKING						1		PAOZZ
3	NAS1578C3H8	.	BOLT						4		PAOZZ
	AN960JD10L	.	WASHER (UNDER HEAD AND						8		PAOZZ
			OVER PACKING) (USE WITH INDEX 3)								
4	74A551041-2005	.	COVER, ACCESS DOOR,						1		PAOZZ
			EXTERNAL FUEL TANK (76301)								
5	NAS1523AA3F	.	PACKING (BETWEEN WASHERS						18		PAOZZ
			AND EXTERNAL TANK)								
6	74A551072-1005	.	ADAPTER ASSY, FILLER CAP -						1		XBOOO
			FUEL (76301)								
7	74A551073-2001	.	GASKET, FILLER CAP						1		PAOZZ
			ADAPTER - FUEL (76301)								
8	457-868-1	.	ADAPTER (99321) (MCDONNELL						1		PAOZZ
			SPEC 74J551071-209)								
9	470-10-6	.	LANYARD, CAP, FILLER (99321)						1		PAOZZ
10	NAS1578C3H4	.	BOLT						14		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 10)						14		PAOZZ
11	MS24665-298	.	PIN, COTTER						1		PAOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)											

**Figure 1. External Fuel Tank (Cylindrical) Fuel Filler Cap and Adapter Assembly
(Sheet 2)**

ORGANIZATION MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL TANK (CYLINDRICAL) NOSE CONE BOOT
EXTERNAL FUEL SYSTEM

Reference Material

Structure Repair, Wing A1-F18AC-SRM-210
 External Fuel Tank, Cylindrical, Part No. 74A551000 WP022 00

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Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

a. Remove nose cone boot (1) (A1-F18AC-SRM-210, WP022 00).

2. INSTALLATION.

a. Install nose cone boot (1) (A1-F18AC-SRM-210, WP022 00).

3. ILLUSTRATION PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

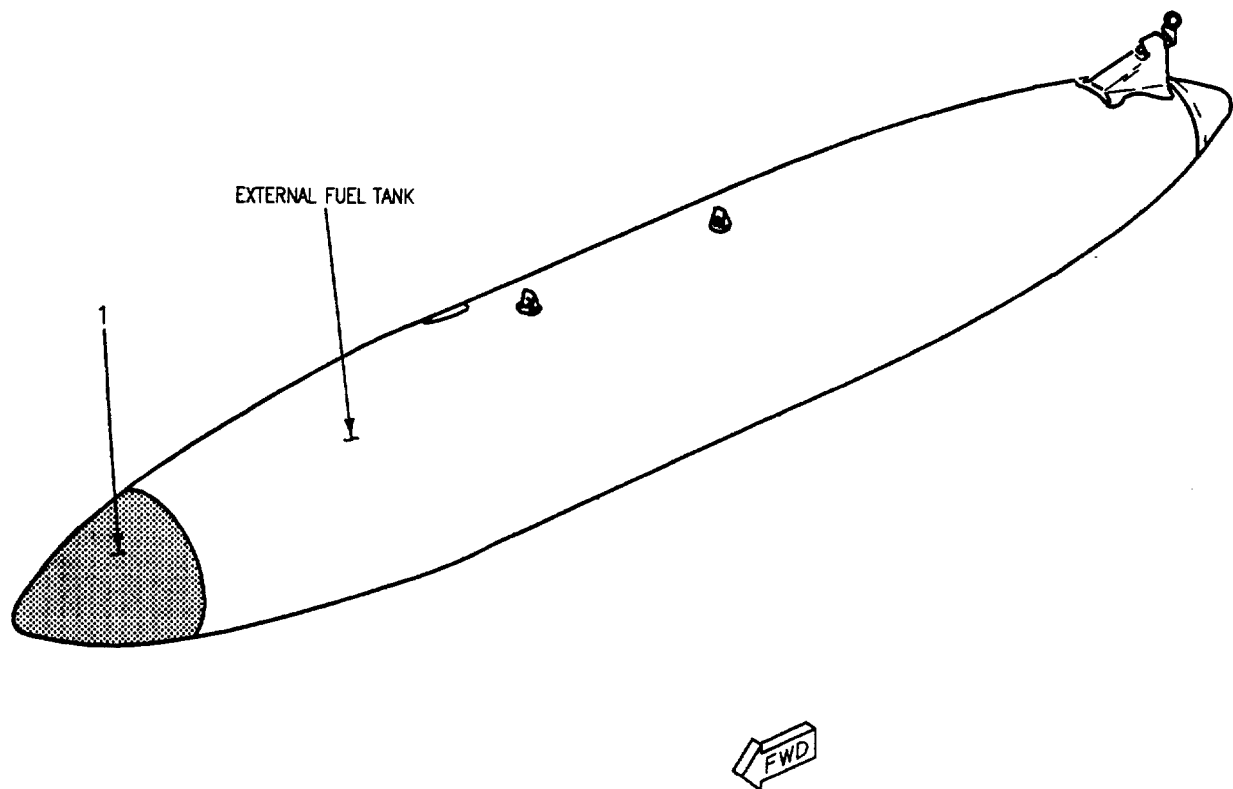


Figure 1. External Fuel Tank (Cylindrical) Nose Cone Boot (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (CYLINDRICAL)									
		NOSE CONE BOOT									
1	SJ8665 FP-44	.							1		PAOZZ
		F-18 EXTERNAL FUEL TANK BOOT									
		(28124) (NOSE CONE BOOT)									

Figure 1. External Fuel Tank (Cylindrical) Nose Cone Boot (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL TANK (CYLINDRICAL) GROUNDING RECEPTACLE

EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Ground Support Equipment	WP009 01
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Plane Captain Manual	A1-F18AC-PCM-000
Aircraft Fuel Cells and Internal/External Tanks	NAVAIR 01-1A-35

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

Nomenclature	Part Number or Type Designation
Toxic and Combustible Gas Indicator	72-8001

Materials Required

Nomenclature	Specification or Part Number
Packings (6)	NAS1523AA3F
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. Defuel external tank (A1-F18AC-PCM-000).



Jet Fuel

1

c. Drain residual fuel per substeps below:

(1) Position an approved safety container under external fuel tank drain valve.

WARNING

To prevent personal injury, do not stand directly under drain valve.

(2) Open drain valve (A1-F18AC-LMM-000).

(3) Close drain valve when all residual fuel has drained.

d. Remove door 516 (A1-F18AC-LMM-010).

e. Ground exhaust blower to an approved static ground.

f. Purge tank until a safe indication is displayed on combustible gas indicator (WP009 01). Refer to NAVAIR 01-1A-35 for purging instructions.

g. Mark cup (3, figure 1) so that it will be reinstalled in the same rotational position as removal.

h. On door 516, remove screws (7), washers (6), packings (5), cup (3), and gasket (1).

i. Remove nut, washers and sleeve (8) from door 516.

2. INSTALLATION.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. On door 516, install sleeve, washers and nut (8, figure 1).



Petrolatum, Technical

2

c. Lubricate packings (5) with petrolatum.



To prevent fuel leaks, install a new gasket between cup and door 516 and make sure cup is positioned securely with the contour of the door.

d. Position cup (3) with new gasket (1) and install packings (5), screws (7), and washers (6).

e. Install door 516 (A1-F18AC-LMM-010).

f. If applicable, refuel external fuel tank (A1-F18AC-PCM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

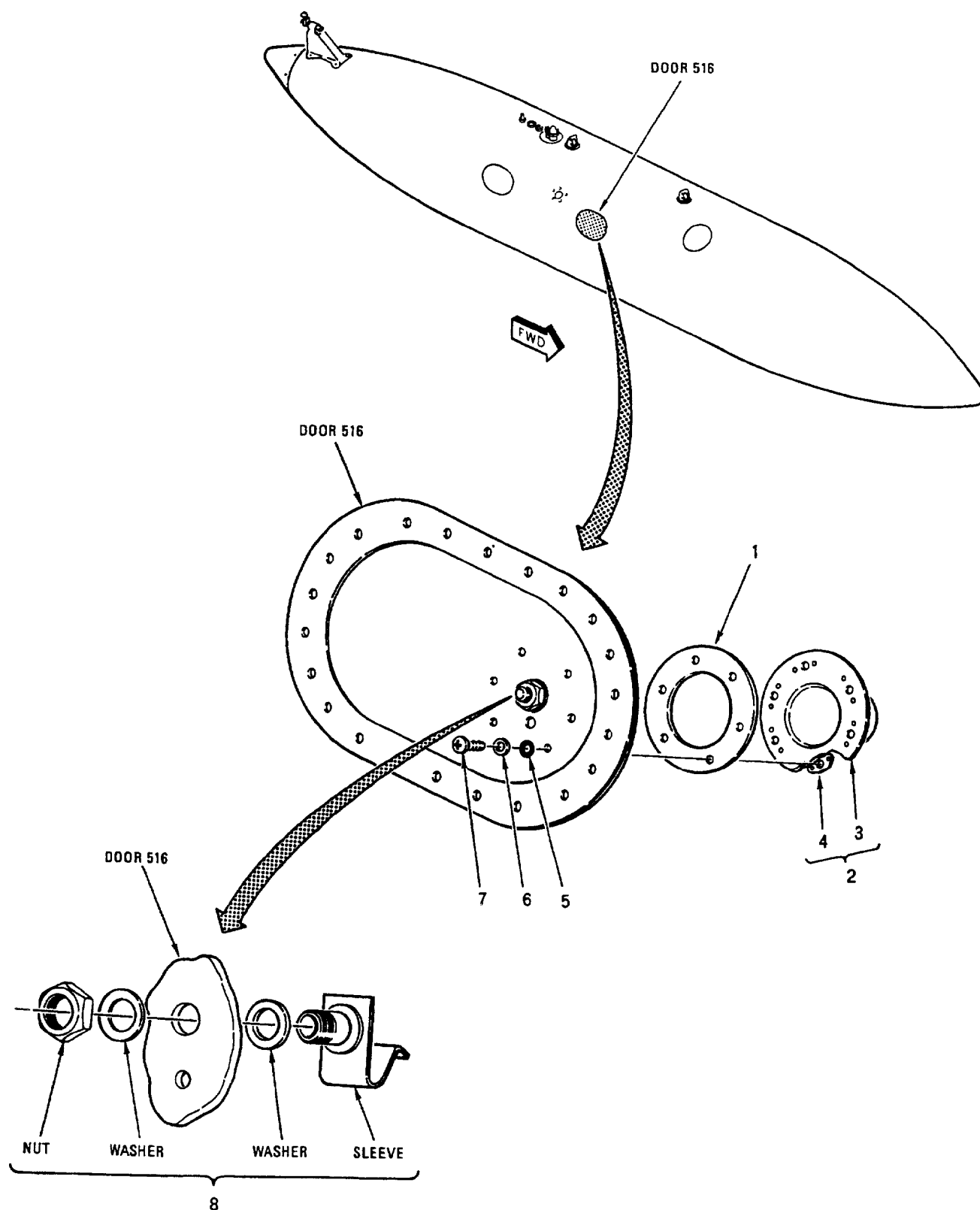


Figure 1. External Fuel Tank (Cylindrical) Grounding Receptacle (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (CYLINDRICAL)									
		GROUNDING RECEPTACLE									
1	74A551113-2001	.	GASKET - GROUNDING JACK, WELL,						1		PAOZZ
			ROUND TANK (76301)								
2	74A551114-1001	.	DRY WELL - ACCESS DOOR GROUND						1		XBOOO
			JACK (CUP) (76301)								
3	74A551114-2001	.	CUP (76301)						1		XBOZZ
4	MS21060L3	.	NUT, PLATE						6		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
5	NAS1523AA3F	.	PACKING						6		PAOZZ
6	AN960JD10L	.	WASHER						6		PAOZZ
7	SC2163-3-4	.	SCREW, MACHINE (06950)						6	*	PAOZZ
			(MCDONNELL SPEC 3M893-3-4)								
	AIC940-3-4	.	SEE ABOVE (06725)						6	*	PAOZZ
	A532-3-4	.	SEE ABOVE (97928)						6	*	PAOZZ
	MA3893-3-4	.	SEE ABOVE (58845)						6	*	PAOZZ
8	310081-U00007	.	CONNECTOR, RECEPTACLE						1	*	PAOZZ
			ELECTRICAL (EXTERNAL FUEL TANK GROUNDING RECEPTACLE) (33483) (MCDONNELL SPEC ST5M1441-007)								
	C70-07	.	SEE ABOVE (06097)						1	*	PAOZZ

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT PARTS.
(WP002 00)

Figure 1. External Fuel Tank (Cylindrical) Grounding Receptacle (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL TANK (CYLINDRICAL) DRYWELL DOOR
EXTERNAL FUEL SYSTEM

Reference Material

None

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Removal	1
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Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

a. Remove drywell door (1, figure 1) and attaching parts.

2. INSTALLATION.

a. Install drywell door (1, figure 1) and attaching parts.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

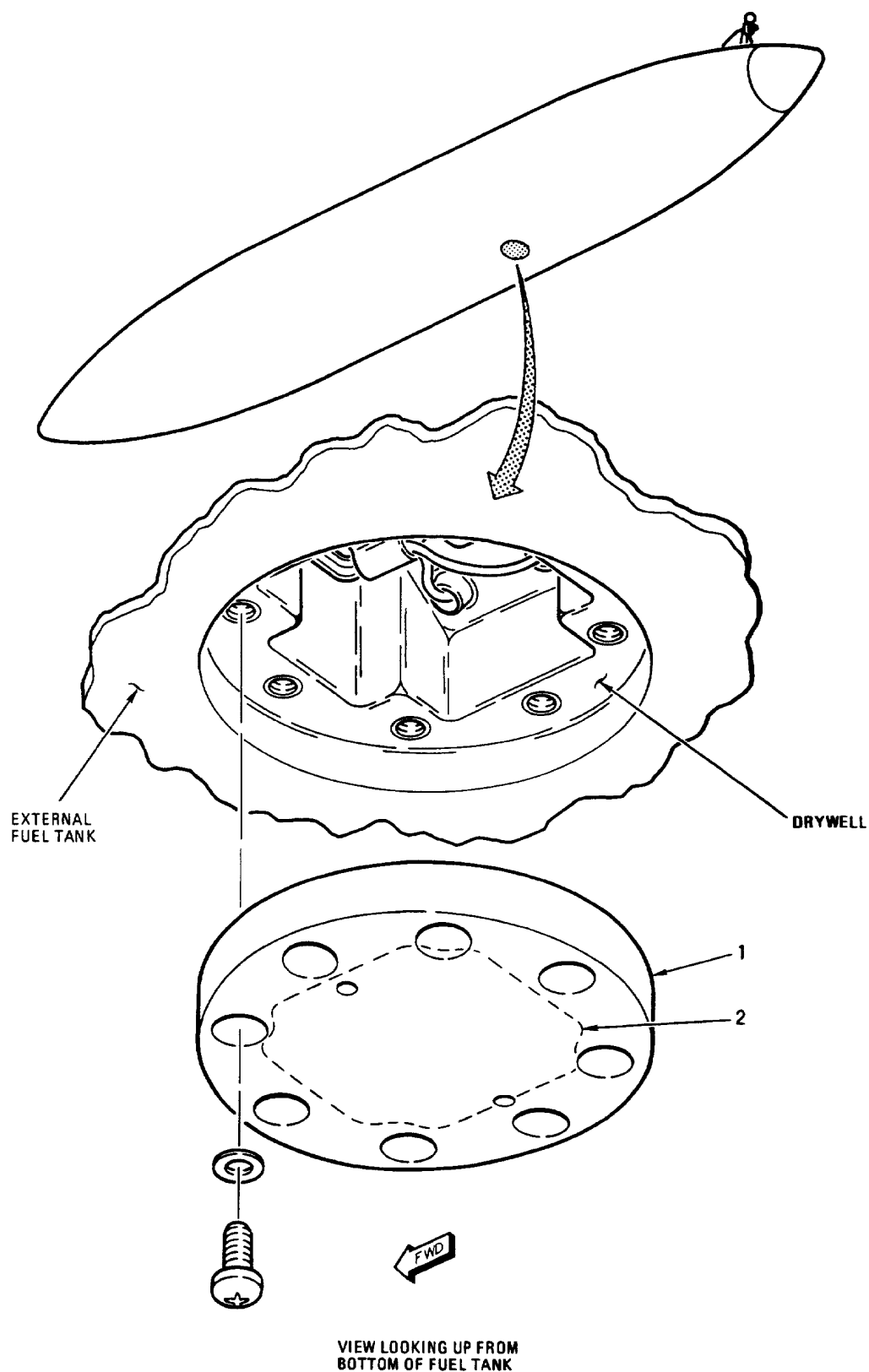


Figure 1. External Fuel Tank Drywell Door (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
1	74A551760-2001	.						EXTERNAL FUEL TANK DRYWELL DOOR	1		PAOZZ
		.						COVER, DRYWELL (EXTERNAL FUEL			
		.						TANK DRYWELL DOOR) (76301)			
	SC2163-4-2	.						SCREW, MACHINE (AP) (96039)	8	*	PAOZZ
		.						(MCDONNELL SPEC 3M893-4-2)			
	AIC940-4-2	.						SEE ABOVE (06725)	8	*	PAOZZ
2	A532-4-2	.						SEE ABOVE (97928)	8	*	PAOZZ
	MA3893-4-2	.						SEE ABOVE (58845)	8	*	PAOZZ
	NAS620-416	.						WASHER (AP)	8		PAOZZ
	74A890128-2001	.						MARKER, DRYWELL ELECTRICAL	1		MDOZZ
		.						IDENTIFICATION (76301)			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. External Fuel Tank Drywell Door (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL TANK (CYLINDRICAL) REFUEL/TRANSFER CHECK VALVE
(5VAY688)

EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Ground Support Equipment	WP009 01
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Airborne Weapons/Stores Loading Manual	A1-F18AC-LWS-000
Line Maintenance Access Doors	A1-F18AC-LMM-010
Plane Captain Manual	A1-F18AC-PCM-000
Aircraft Fuel Cells and Internal/External Tanks	NAVAIR 01-1A-35

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Materials Required	2
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

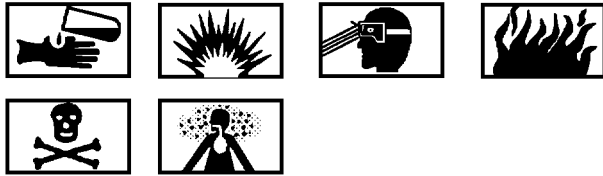
Materials Required

Support Equipment Required		Materials Required	
Nomenclature	Part Number or Type Designation	Nomenclature	Specification or Part Number
		Packing	MS29512-06
Toxic and Combustible Gas Indicator	72-8001	Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. REMOVAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. Defuel external tank (A1-F18AC-PCM-000).



Jet Fuel

1

c. Drain residual fuel (A1-F18AC-PCM-000).

d. Remove external tank (A1-F18AC-LWS-000).

e. Remove door 517 (A1-F18AC-LMM-010).

f. Ground tank and exhaust blower to approved static grounds.

g. Purge tank until a safe indication is displayed on combustible gas indicator (WP009 01). Refer to NAVAIR 01-1A-35 for purging instructions.

h. Remove clamp (2, figure 1) and disconnect tube (1).

i. Remove check valve (3) and packing (4).

3. INSTALLATION.

Petrolatum, Technical

2

a. Lubricate packing with petrolatum.

b. Install packing (4, figure 1) and check valve (3) with flow arrow pointing up.

c. Install tube (1) and clamp (2).

d. Install door 517 (A1-F18AC-LMM-010).

e. Install external tank on refueled aircraft (A1-F18AC-LWS-000).

f. Do test per substeps below:

(1) Monitor external fuel tank using fuel quantity indicator for approximately 24 hours.

(2) External fuel tank fuel quantity should not increase more than 150 pounds.

4. ILLUSTRATED PARTS BREAKDOWN.

5. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

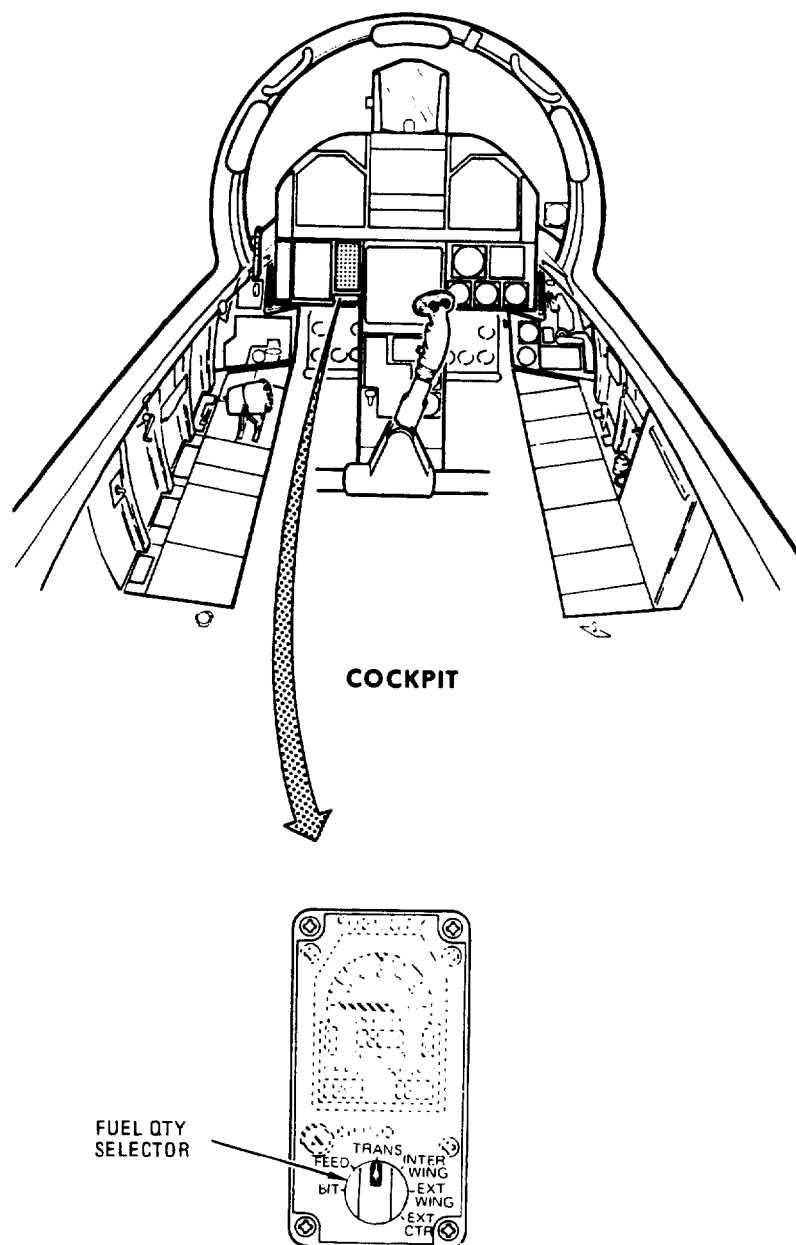


Figure 1. External Fuel Tank (Cylindrical) Refuel/Transfer Check Valve (5VAY688)
(Sheet 1)

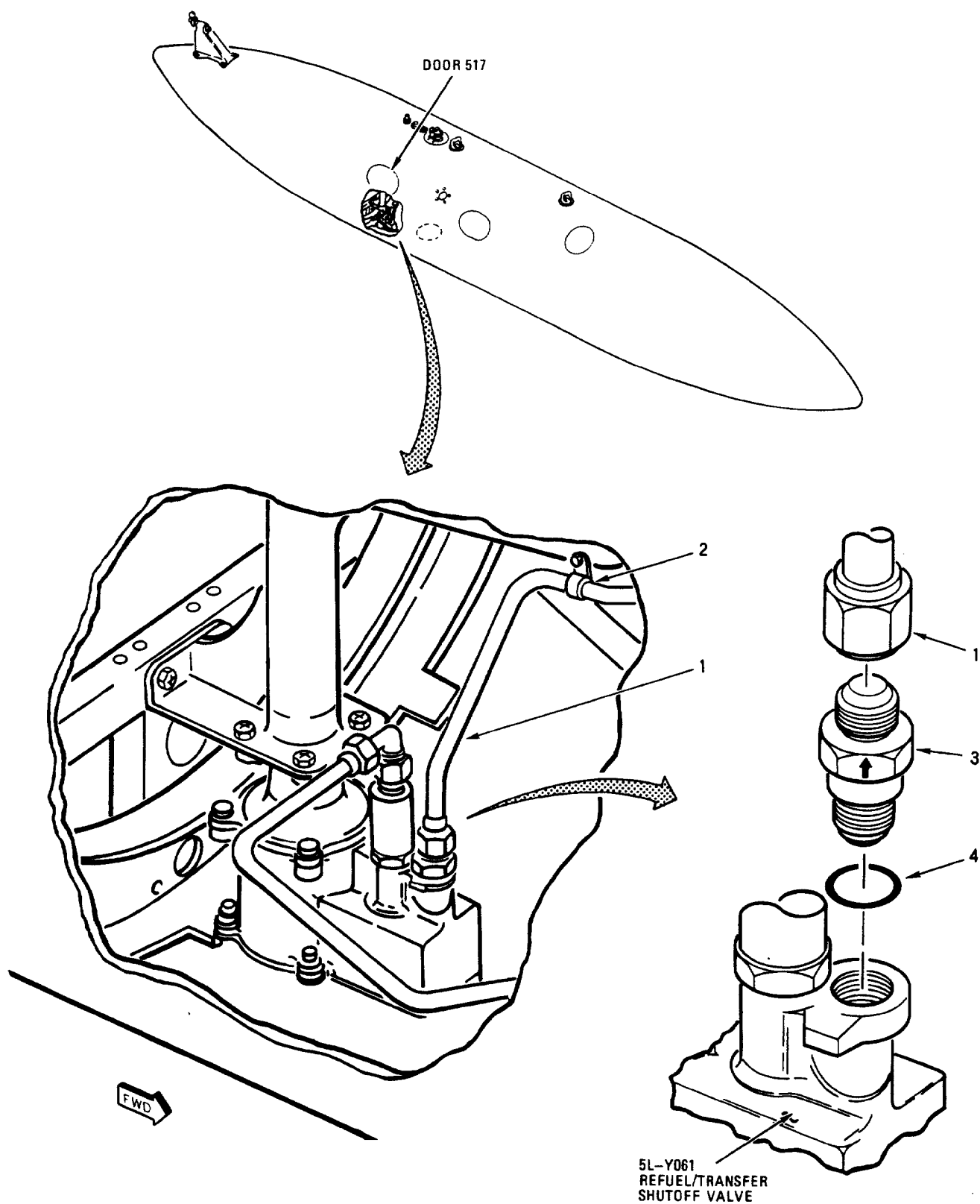


Figure 1. External Fuel Tank (Cylindrical) Refuel/Transfer Check Valve (5VAY688)
(Sheet 2)

09006012

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (CYLINDRICAL)									
		REFUEL/TRANSFER CHECK VALVE									
1	74A551066-1001	.	TUBE - FUEL LEVEL SENSING (76301)	.....					1		MHOZZ
2	NMCST9M529-6	.	CLAMP, LOOP (03926)	.....					1		PAOZZ
			(MCDONNELL SPEC ST9M529-6)								
	SC2671-3-9	.	SCREW, MACHINE (AP) (06950)	.....					1	*	PAOZZ
			(MCDONNELL SPEC 3M933-3-9)								
	IAM9366-3-9	.	SEE ABOVE (58251)	.....					1	*	PAOZZ
	AIC944-3-9	.	SEE ABOVE (06725)	.....					1	*	PAOZZ
	MA5933-3-9	.	SEE ABOVE (58845)	.....					1	*	PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					1		PAOZZ
3	IC1730	.	VALVE, CHECK (EXTERNAL FUEL	.....					1		PAOZZ
			TANK REFUEL/TRANSFER								
			CHECK VALVE) (99240) (NHPA								
			234165-3, 234165-5; SMLR								
			CODE PAHOH)								
4	MS29512-06	.	PACKING	.....					1		PAOZZ

Figure 1. External Fuel Tank (Cylindrical) Refuel/Transfer Check Valve (5VAY688)
(Sheet 3)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EXTERNAL FUEL TANK JETTISON PIVOT BALL ADAPTER AND EXTERNAL FUEL TANK
(CYLINDRICAL) JETTISON PIVOT ASSEMBLY****EXTERNAL FUEL SYSTEM**

Reference Material

Airborne Weapons/Stores Loading Manual	A1-F18AC-LWS-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Structural Hardware	NAVAIR 01-1A-8

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External Fuel Tank Jettison Pivot Ball Adapter	2
Installation	2
Materials Required	2
External Fuel Tank Jettison Pivot Ball Adapter, Figure 1	4
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

None

1. EXTERNAL FUEL TANK (CYLINDRICAL OR ELLIPTICAL) JETTISON PIVOT BALL ADAPTER.

Support Equipment Required

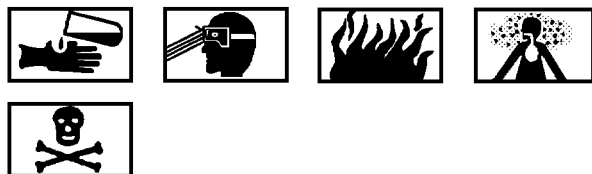
Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 150 Foot-Pounds	-
Torque Wrench, 0 to 250 Foot-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Antiseize Compound	MIL-T-5544 (CAGE 81349)
Pin	MS16562-210

2. REMOVAL.

- Defuel external tank (A1-F18AC-PCM-000).
- Remove external tank (A1-F18AC-LWS-000).



Antiseize Compound 19



To prevent galling of shouldered shaft by nut during removal, apply antiseize compound to threads.

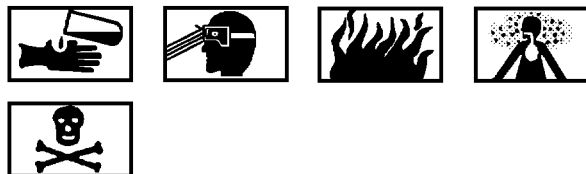
- Apply antiseize compound to threads of shaft (3 or 5, figure 1 or 2).

- Remove nut (1 or 2), washer (2 or 3) and shaft (3 or 5) from jettison pivot base assembly.

- Remove nut (8 or 10), washer (7 or 9) and adapter (6 or 8) from shaft (3 or 5).

3. INSTALLATION.

- Position plate (4 or 6) on shaft (3 or 5).
- Install pin (5 or 7) through hole in plate (4 or 6) and shaft (3 or 5) per NAVAIR 01-1A-8. Trim pin (5 or 7) level with plate (4 or 6).



Antiseize Compound 19



To prevent galling of shouldered shaft by nut during installation, apply antiseize compound to threads.

NOTE

Washer must be installed with countersink facing aft.

- Apply antiseize compound to threads on both ends of shaft (3 or 5, figure 1 or 2).
- Install shaft (3 or 5) in jettison pivot support and install nut (1 or 2) and washer (2 or 3). Torque nut (1 or 2) 150 to 167 foot-pounds. (QA)
- Install adapter (6 or 8), washer (7 or 9) and nut (8 or 10) on shaft (3 or 5). Torque nut (8 or 10) 59 to 83 foot-pounds. (QA)
- Install external tank (A1-F18AC-LWS-000).

4. EXTERNAL FUEL TANK (CYLINDRICAL) PIVOT ASSEMBLY.

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 50 Foot-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Packing (4)	M25988/1-110
Petrolatum, Technical	VV-P-236 (CAGE 81348)

5. REMOVAL.

- a. Defuel external tank (A1-F18AC-PCM-000).
- b. Remove external tank (A1-F18AC-LWS-000).
- c. Remove bolts (11, figure 2) from pivot assembly (1), packings (15), and washers (12, 13, 14).

6. INSTALLATION.

- a. Prepare mating surfaces of washers (12, 13, 14, figure 2), for electrical bond (A1-F18AC-LMM-000).



Petrolatum, Technical

- b. Lubricate new packings (15) with petrolatum.

- c. Position bolts (11, detail A), washers (12, 13, 14), and packings (15), on pivot assembly (1).

- d. Position pivot assembly (1) with bolts (11) on external tank and handtighten bolts (11) making sure alignment is correct.

- e. Torque bolts (11) 13 to 16 foot-pounds. (QA)

- f. Install external tank (A1-F18AC-LWS-000).

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

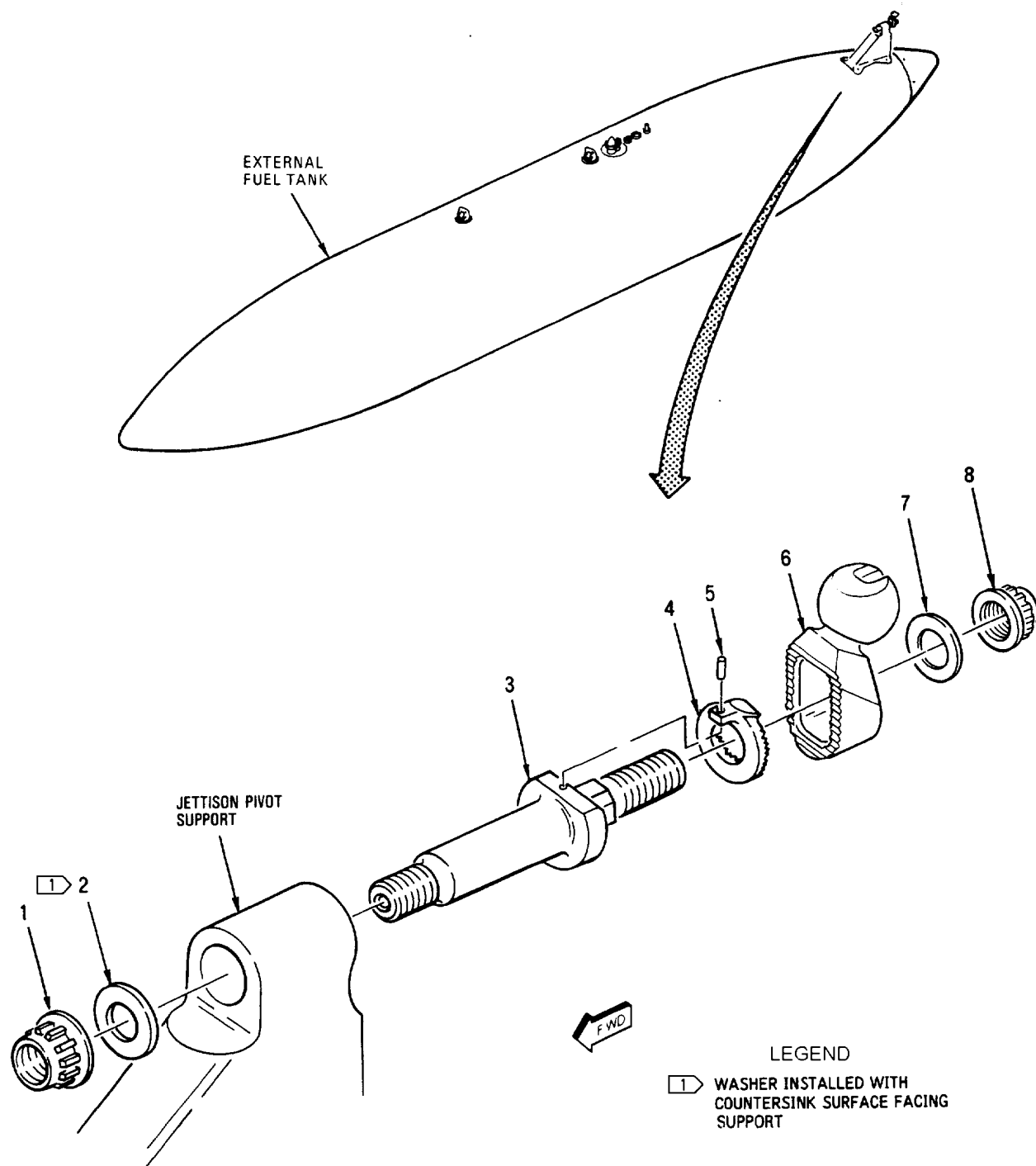


Figure 1. External Fuel Tank Jettison Pivot Ball Adapter (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		EXTERNAL FUEL TANK JETTISON PIVOT								
		BALL ADAPTER								
1	LH12038-12	.	NUT, SELF-LOCKING, EXTENDED					1	*	PAOZZ
			WASHER, SPLINE (72962)							
			(MCDONNELL SPEC ST3M752-12)							
	H50609-12	.	SEE ABOVE (15653)					1	*	PAOZZ
	78686-12	.	SEE ABOVE (56878)					1	*	PAOZZ
2	NAS1587-12C	.	WASHER					1		PAOZZ
3	74A550677-2003	.	SHAFT, SHOULDERED (76301)					1		PAOZZ
			(SUPERSEDES 74A550677-2001)							
4	74A550676-2003	.	PLATE, SERRATED (76301)					1		PAOZZ
			(SUPERSEDES 74A550676-2001)							
5	MS16562-210	.	PIN					1		PAOZZ
6	74A550675-2003	.	ADAPTER, BALL (76301)					1		PAOZZ
			(SUPERSEDES 74A550675-2001)							
7	74A550691-2003	.	WASHER, FLAT (76301)					1		PAOZZ
8	LH12038-12	.	NUT, SELF-LOCKING, EXTENDED					1	*	PAOZZ
			WASHER, SPLINE (72962)							
			(MCDONNELL SPEC ST3M752-12)							
	H50609-12	.	SEE ABOVE (15653)					1	*	PAOZZ
	78686-12	.	SEE ABOVE (56878)					1	*	PAOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)										

Figure 1. External Fuel Tank Jettison Pivot Ball Adapter (Sheet 2)

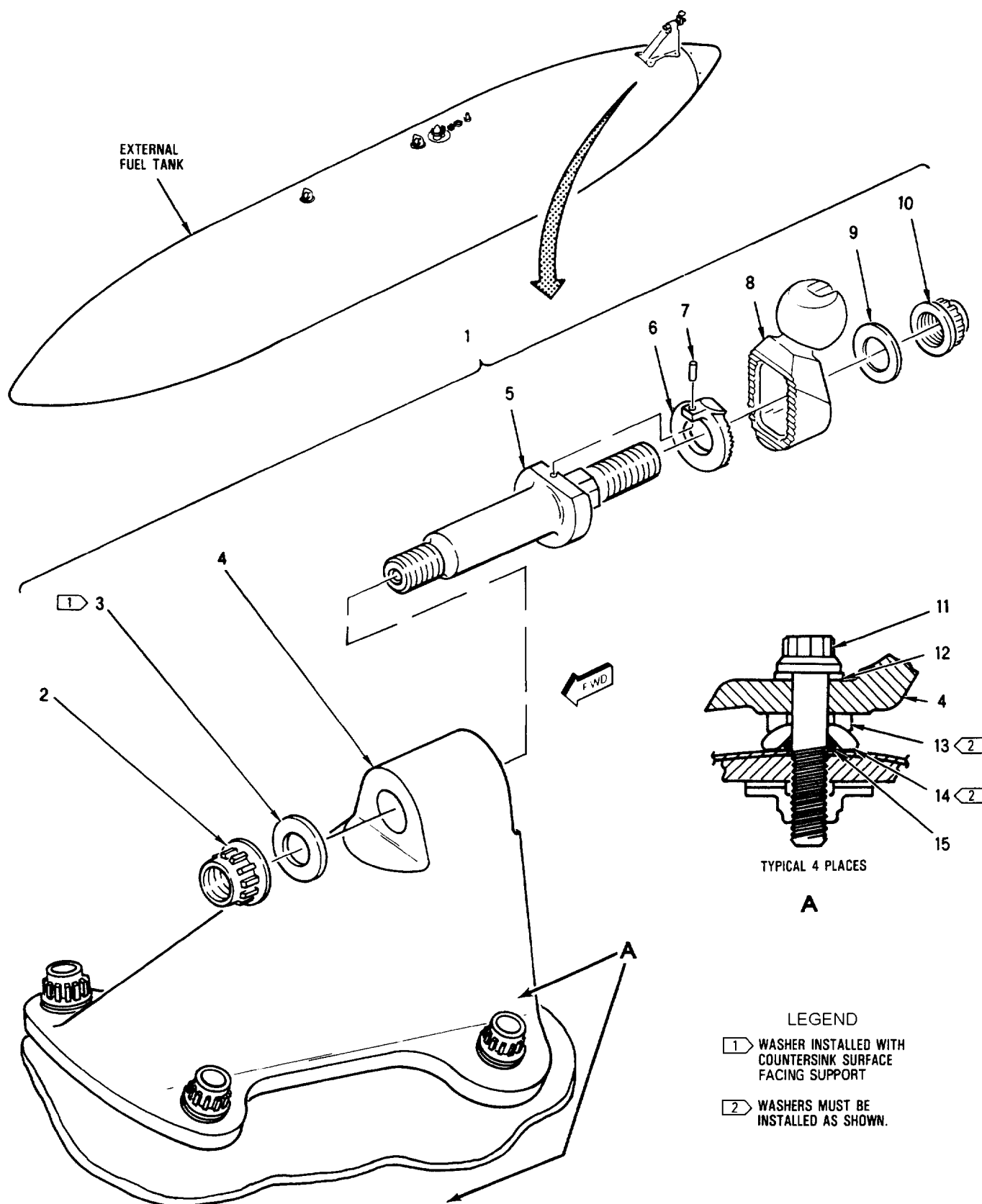


Figure 2. External Fuel Tank (Cylindrical) Pivot Assembly (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (CYLINDRICAL)									
		PIVOT ASSEMBLY									
1	74A551030-1001	.						PIVOT ASSY - JETTISON, EXTERNAL	1		XBOOO
								FUEL TANK (76301)			
2	LH12038-12	.						NUT, SELF-LOCKING, EXTENDED	1	*	PAOZZ
								WASHER, SPLINE (72962)			
								(MCDONNELL SPEC ST3M752-12)			
	H50609-12	.						SEE ABOVE (15653)	1	*	PAOZZ
	78686-12	.						SEE ABOVE (56878)	1	*	PAOZZ
3	NAS1587-12C	.						WASHER	1		PAOZZ
4	74A551031-2003	.						SUPPORT (76301)	1		XAOZZ
5	74A550677-2003	.						SHAFT, SHOULDERED (76301)	1		PAOZZ
6	74A550676-2003	.						PLATE, SERRATED (76301)	1		PAOZZ
7	MS16562-210	.						PIN	1		PAOZZ
8	74A550675-2003	.						ADAPTER, BALL (76301)	1		PAOZZ
9	74A550691-2003	.						WASHER, FLAT (76301)	1		PAOZZ
10	LH12038-12	.						NUT, SELF-LOCKING, EXTENDED	1	*	PAOZZ
								WASHER, SPLINE (72962)			
								(MCDONNELL SPEC ST3M752-12)			
	H50609-12	.						SEE ABOVE (15653)	1	*	PAOZZ
	78686-12	.						SEE ABOVE (56878)	1	*	PAOZZ
11	AIC763-6-18F	.						BOLT, SHEAR (06725) (MCDONNELL	4	*	PAOZZ
								SPEC ST3M753-6-18F)			
	VS3190-6-18F	.						SEE ABOVE (92215)	4	*	PAOZZ
	MB156-6-18F	.						SEE ABOVE (73197)	4	*	PAOZZ
	122897-6-18F	.						SEE ABOVE (80539)	4	*	PAOZZ
	VFK600-6-18F	.						SEE ABOVE (06710)	4	*	PAOZZ
	PBF 1267-6-18F	.						SEE ABOVE (27624)	4	*	PAOZZ
12	MS20002C6	.						WASHER	4		PAOZZ
13	74A550696-2009	.						WASHER (76301)	4		PAOZZ
14	74A550696-2011	.						WASHER (76301)	4		PAOZZ
15	M25988/1-110	.						PACKING	4		PAOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)											

Figure 2. External Fuel Tank (Cylindrical) Pivot Assembly (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL TANK (CYLINDRICAL) LUGS
EXTERNAL FUEL SYSTEM

Reference Material

Airborne Weapons/Stores Loading Manual	A1-F18AC-LWS-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000

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Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

- a. Defuel external tank (A1-F18AC-PCM-000).
- b. Remove external tank (A1-F18AC-LWS-000).
- c. Remove lug (1, figure 1) from well.

2. INSTALLATION.

- a. Prepare mating surfaces of lug (1, figure 1) and well for electrical bonding (A1-F18AC-LMM-000).
- b. Install lug (1) in well.
- c. Install external tank (A1-F18AC-LWS-000).
- d. Do external fuel tanks transfer test (A1-F18AC-LMM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

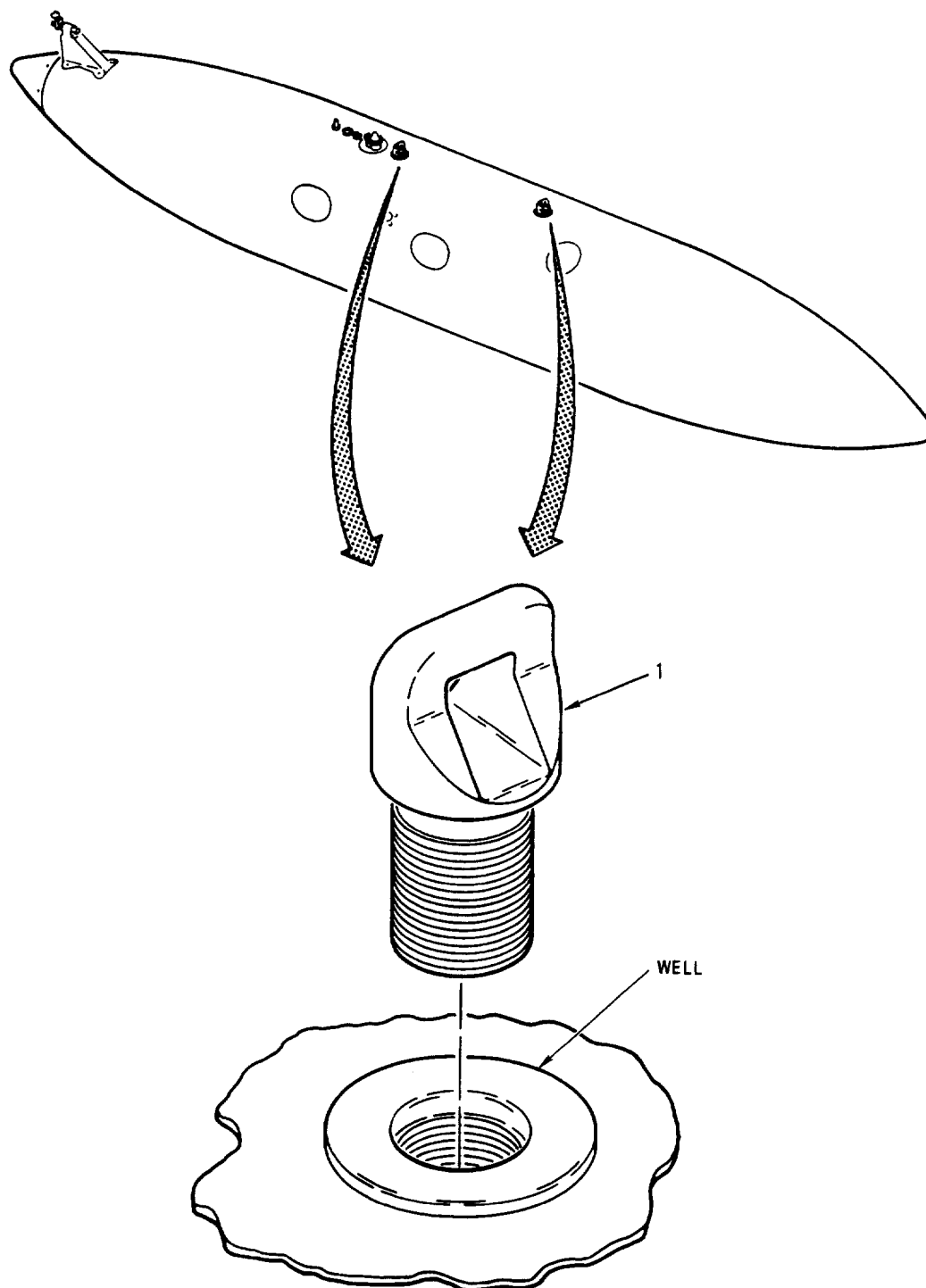


Figure 1. External Fuel Tank (Cylindrical) Lugs (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (CYLINDRICAL)									
		LUGS									
1	74A551032-2001	.							1		PBOZZ
		LUG - SUSPENSION, EXTERNAL									
		FUEL TANK (76301)									

Figure 1. External Fuel Tank (Cylindrical) Lugs (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL TANK PIVOT HOOK
EXTERNAL FUEL SYSTEM

Reference Material

Airborne Weapons/Stores Loading Manual	A1-F18AC-LWS-000
Line Maintenance Access Doors	A1-F18AC-LMM-010
Weapons Control System	A1-F18AC-740-300
Aircraft Wing SUU-63/A Pylon	WP036 00

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Wing Pylon Pivot Hook	2
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Support Equipment Required	2
Wing Pylon Pivot Hook, Figure 2	6

Record of Applicable Technical Directives

None

1. CENTERLINE PIVOT HOOK.

Materials Required

Support Equipment Required	Nomenclature	Specification or Part Number
None	Cotter Pin	MS24665-283

2. REMOVAL.

- a. Remove external tank if installed (A1-F18AC-LWS-000).
- b. Remove centerline pylon if applicable (A1-F18AC-740-300, WP036 00).
- c. Open door 42 (A1-F18AC-LMM-010).
- d. Working through door 42, remove cotter pin (1, figure 1) nut (2), washer (3), spacer (4), socket (6), and hook (7).

3. INSTALLATION.**NOTE**

Make sure nut is tightened until end play in hook is removed but pivot hook can be rotated by hand.

- a. Position socket (6, figure 1) and hook (7), and install spacer (4), washer (3), nut (2) and cotter pin (1). (QA)

- b. Close door 42 (A1-F18AC-LMM-010).

- c. Install centerline pylon, if applicable (A1-F18AC-740-300, WP036 00).

- d. Install external tank if applicable (A1-F18AC-LWS-000).

4. WING PYLON PIVOT HOOK.**Support Equipment Required**

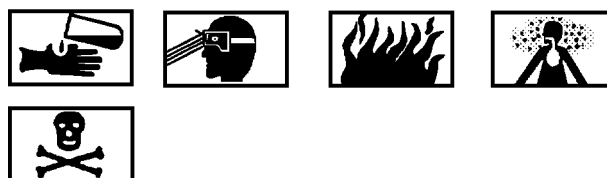
Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 120 Foot-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Antiseize Compound	MIL-T-5544 (CAGE 81349)
Cotter Pin	MS24665-283
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)

Materials Required (Cont)

Nomenclature	Specification or Part Number
Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)

5. REMOVAL.

Antiseize Compound

19



To prevent galling of shouldered shaft by nut during removal, apply antiseize compound to threads.

NOTE

Removal of external fuel tank is not required to remove pivot hook from pylon.

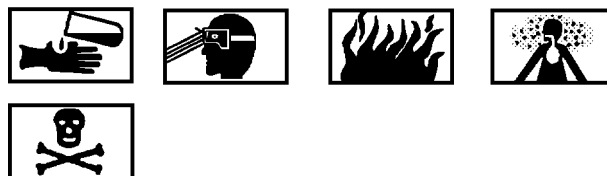
- a. If external fuel tank is installed, nut (8, figure 2) must be removed. Brush antiseize compound on exposed threads of shouldered shaft.

- b. Remove nut (8), washer (7), and adapter (6) from external fuel tank jettison pivot assembly.

- c. Working through aft end of wing pylon, remove cotter pin (1), nut (2), spacer (3), and pivot hook (4).

6. INSTALLATION.

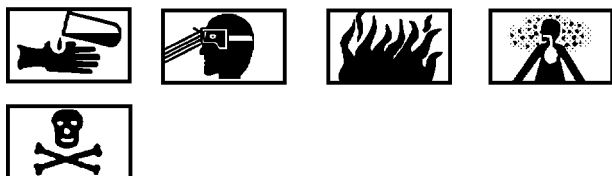
- a. If socket (5, figure 2) came out during removal, do substeps below:



Isopropyl Alcohol

3

(1) Clean mating surface of socket (6) and structure with cheesecloth moistened in isopropyl alcohol. Wipe area with clean dry cheesecloth before isopropyl alcohol evaporates. Repeat procedure until no visible sign of sealing compound or contamination remains.



Sealing Compound

6

(2) Apply sealing compound to mating surfaces of socket (5) and structure.

(3) Apply a sample of sealing compound to a piece of scrap metal. Keep sample in same area as socket (5).

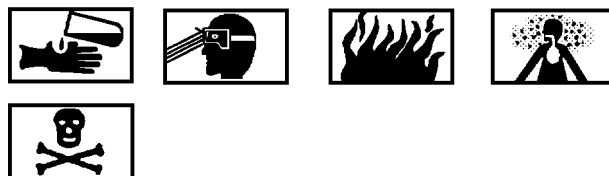
(4) Allow sealing compound to cure approximately 18 hours or until sample is rubber-like.

NOTE

Make sure nut is tightened until end play in pivot hook is removed, but pivot hook can be rotated by hand.

b. Position hook (4) and install spacer (3), nut (2), and cotter pin (1). (QA)

c. If external fuel tank is installed, install adapter (6) on hook (4) and rotate forward into position on external fuel tank jettison pivot assembly.



Antiseize Compound

19



To prevent galling of shouldered shaft by nut during installation, apply antiseize compound to threads.

d. Brush antiseize compound on exposed threads of shouldered shaft.

e. Install washer (7) and nut (8). Torque nut (8) 58 to 83 foot-pounds. (QA)

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

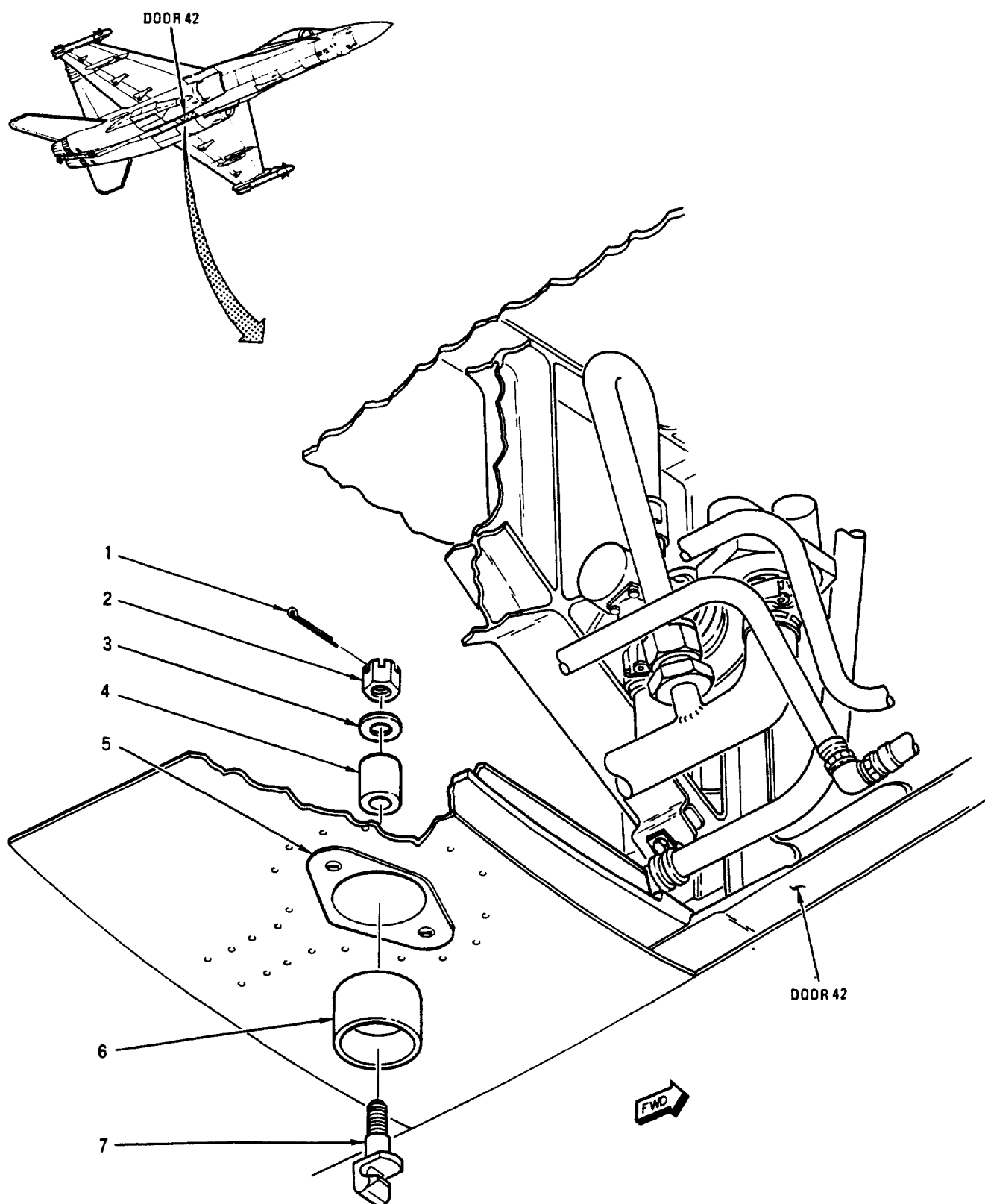


Figure 1. Centerline Pivot Hook (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		CENTERLINE PIVOT HOOK									
1	MS24665-283	.	PIN, COTTER						1		PAOZZ
2	MS17825-8	.	NUT						1		PAOZZ
3	AN960-816L	.	WASHER						1		PAOZZ
4	74A735629-2001	.	SPACER - JETTISON PIVOT, EXT						1		PAOZZ
			FUEL TANK, CL PYLON (76301)								
5	74A324686-2003	.	COVER, ACCESS - AFT SUPPORT,						1	A	MGOZZ
			CENTERLINE EXT FUEL								
			TANK (76301)								
	HT4053-4-4	.	SCREW, CLOSE TOLERANCE (AP)						2		PAOZZ
			(73197) (MCDONNELL								
			SPEC ST3M740-4-4)								
6	74A731000-2007	.	SOCKET, BALL - JETTISON PIVOT,						1		XBOZZ
			EXTERNAL FUEL TANK								
			PYLON (76301)								
7	74A731001-2007	.	HOOK, JETTISON PIVOT -						1		PAOZZ
			EXTERNAL FUEL TANK,								
			PYLON (76301)								
		CODE	USABLE ON					MODEL			
		A	161353 THRU 161741					F/A-18A/B			

Figure 1. Centerline Pivot Hook (Sheet 2)

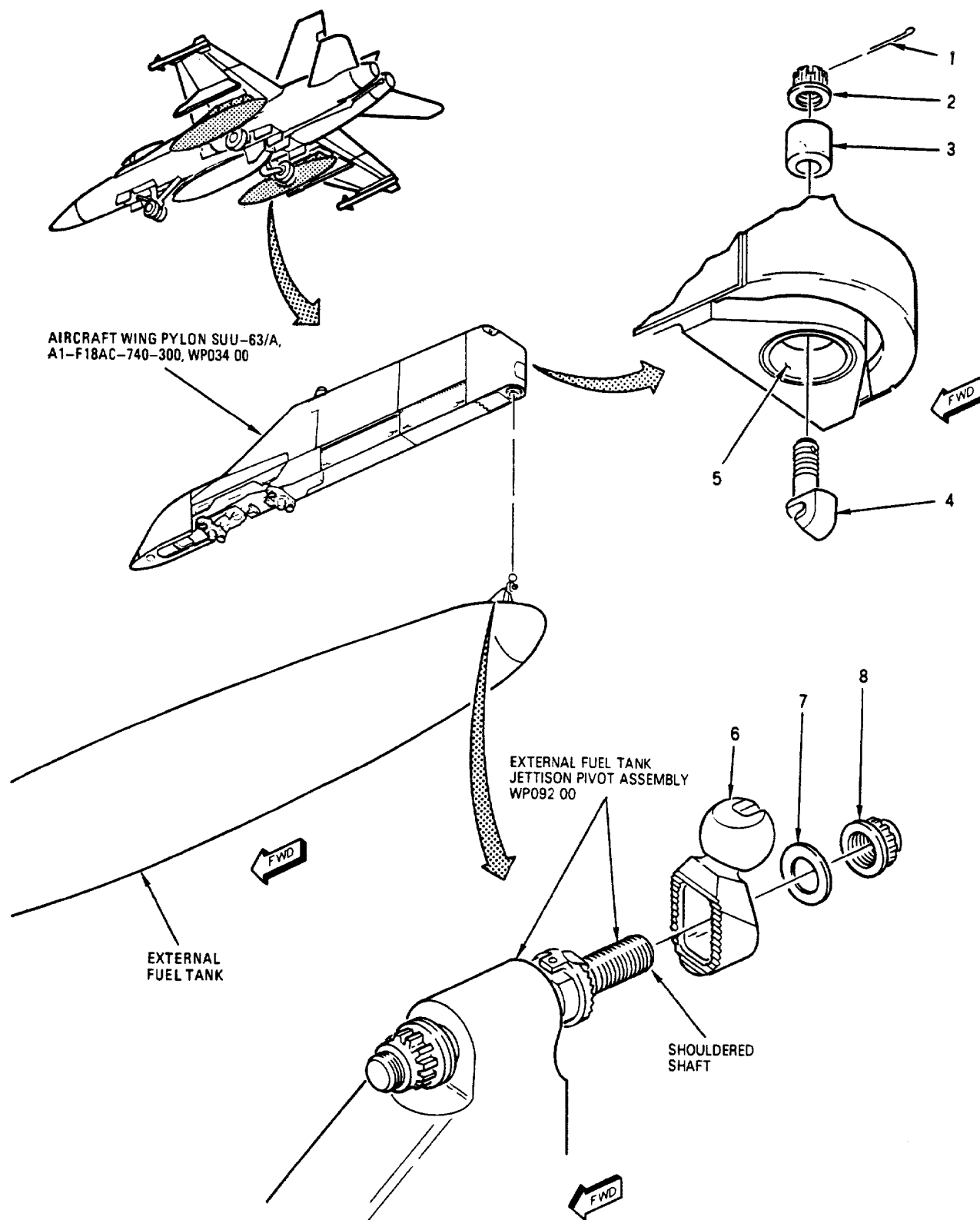


Figure 2. Wing Pylon Pivot Hook (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING PYLON PIVOT HOOK									
1	MS24665-283	.	PIN, COTTER						1		PAOZZ
2	74384-8M	.	NUT, PLAIN, EXTENDED (56878)						1	*	PAOZZ
			(MCDONNELL SPEC ST3M612C8M)								
	11572-8	.	SEE ABOVE (72962)						1	*	PAOZZ
3	74A731154-2001	.	SPACER - JETTISON PIVOT,						1		MGOZZ
			PYLON (76301) (NHPA								
			74A730101-2001, SM&R								
			CODE PAOGD)								
4	74A731001-2007	.	HOOK, JETTISON PIVOT -						1		PAOZZ
			EXTERNAL FUEL TANK,								
			PYLON (76301) (NHPA								
			74A730101-2001, SM&R								
			CODE PAOGD)								
5	74A731000-2007	.	SOCKET, BALL - JETTISON PIVOT						1		XBOZZ
			EXTERNAL FUEL TANK,								
			PYLON (76301) (NHPA								
			74A730101-2001, SM&R								
			CODE PAOGD)								
6	74A550675-2003	.	ADAPTER - BALL - JETTISON						1		PAOZZ
			PIVOT (76301)								
7	74A550691-2003	.	WASHER - FLAT (76301)						1		PAOZZ
8	LH12038-12	.	NUT, SELF-LOCKING, EXTRUDED						1	*	PAOZZ
			WASHER, SPLINE (72962)								
			(MCDONNELL SPEC ST3M752-12)								
	H50609-12	.	SEE ABOVE (15653)						1	*	PAOZZ
	78686-12	.	SEE ABOVE (56878)						1	*	PAOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)											

Figure 2. Wing Pylon Pivot Hook (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL TANK VENT TUBE
EXTERNAL FUEL SYSTEM

Reference Material

None

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External Fuel Tank Vent Tube, Figure 1	3

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Brush, Paint-Type, 1/4 inch	-
Cheesecloth	CCC-C-440, Type 1, Class 1 (CAGE 81348)
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)
Scraper, Wooden or Phenolic	-
Sealing Compound	MIL-S-8802, Type 2 Class A-1/2 (CAGE 81348)

1. REMOVAL.

a. Remove tube (1, figure 1) by cutting sealing compound around periphery of tube.

2. INSTALLATION.

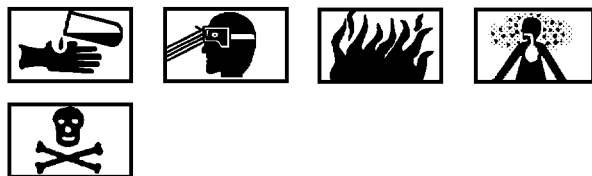


Isopropyl Alcohol

3

a. Using a plastic or wooden scraper and cheesecloth moistened with isopropyl alcohol, remove residual sealing compound and all visible contamination.

b. Wipe area with dry clean cheesecloth before isopropyl alcohol evaporates.



Sealing Compound

6

c. Brush sealing compound on surface of tube (1, figure 1) that mates with fitting.

d. Install tube (1) with slot aligned with index key.

e. Position tube (1) to dimension shown on detail A.

f. Remove sealing compound squeeze out from inside surface of tube (1).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

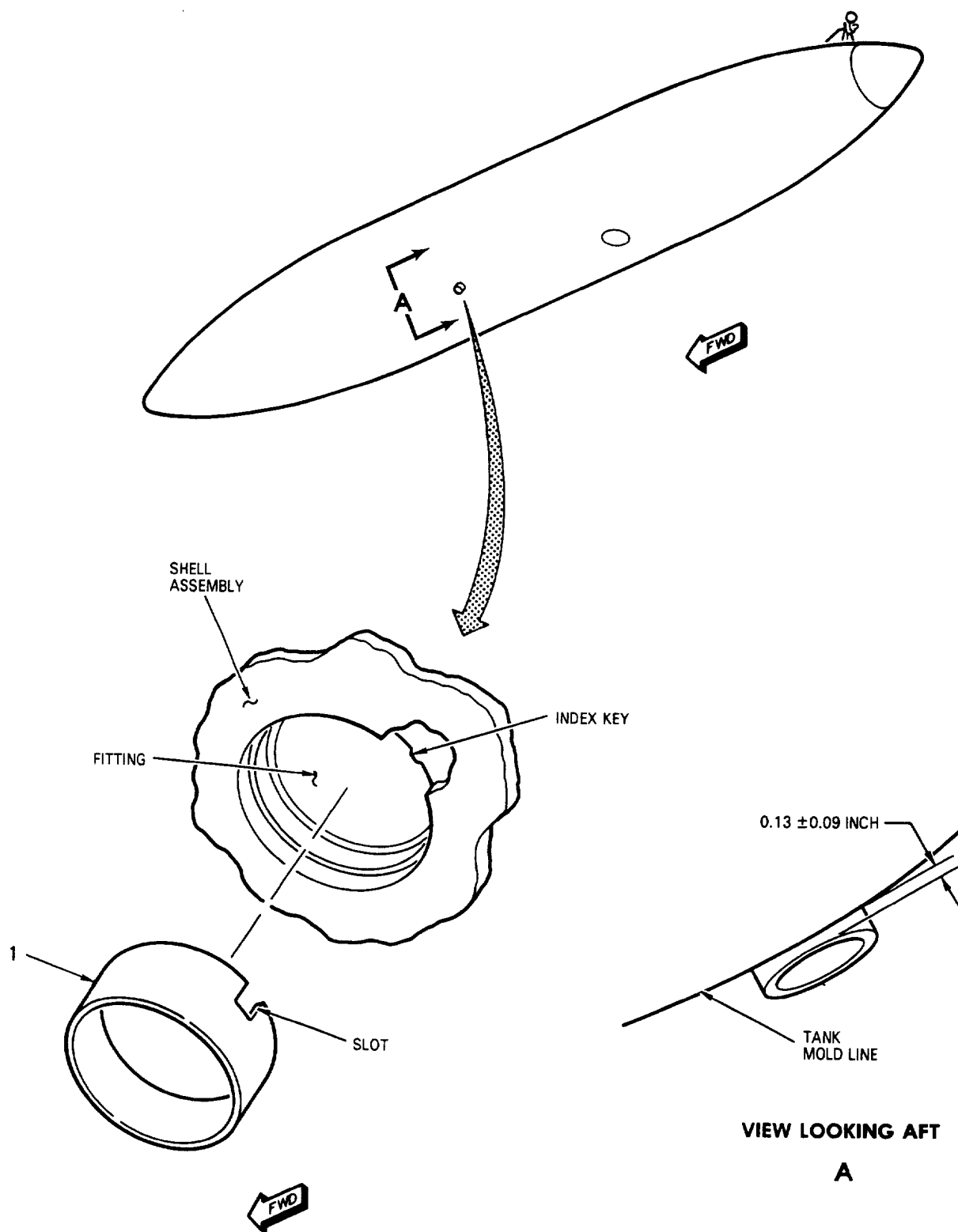


Figure 1. External Fuel Tank Vent Tube (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
1	74A550735-2001	EXTERNAL FUEL TANK VENT TUBE							1		MHOZZ
		. TUBE - RAM, PRESS, RELIEF PORT									
		(EXTERNAL FUEL TANK									
		VENT TUBE (76301)									

Figure 1. External Fuel Tank Vent Tube (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL TANK (CYLINDRICAL) SWAYBRACE PAD
EXTERNAL FUEL SYSTEM

Reference Material

Structural Repair A1-F18AC-SRM-200
Aircraft Weapons Systems Cleaning and Corrosion Control NAVAIR 01-1A-509

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Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Adhesive	EA9321A/B (CAGE 33564)
Cheesecloth	CCC-C-440, Type 1, Class 1 (CAGE 81348)
Cloth, Abrasive	AA1048, Type 1, Class 1, Grit 240, 9x11 (CAGE 58536)
Methyl Ethyl Ketone	TT-M-261 (CAGE 81348)
Nylon Monofilament Line, 0.008-0.012 inch diameter	-

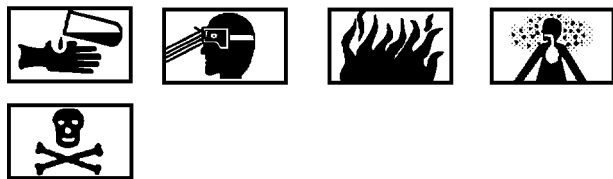
Materials Required (Cont)

Nomenclature	Specification or Part Number
Scraper, Wooden or Phenolic	-
Sealing Compound	MIL-S-83430, Class B-4
Sodium Dichromate	O-S-595 (CAGE 81348)
Sulfuric Acid	O-S-809, Type 1, Class 1 (CAGE 81348)

1. REMOVAL.

a. Scrape off old adhesive to prepare a place to pry swaybrace pad (1, figure 1).

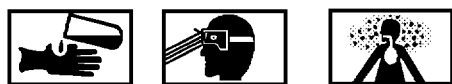
b. Remove swaybrace pad by prying with a screw-driver or putty knife, being careful not to damage fuel tank shell assembly.

2. INSTALLATION.

Methyl Ethyl Ketone

8

a. Clean surface of swaybrace pad (1, figure 1) to be bonded with clean cheesecloth dampened with methyl ethyl ketone. Wipe with clean, dry cheesecloth.



Sulfuric Acid

20

b. Prepare by volume, a solution of 96.6 percent sulfuric acid and 3.4 percent sodium dichromate saturated with water.

c. Immerse swaybrace pad (1) in prepared solution for 15 minutes at 150° to 160° F (65° to 71° C).

d. Rinse swaybrace pad (1) in demineralized water at 150° F (65° C) maximum.

NOTE

Water break is illustrated in NAVAIR 01-1A-509.

e. Check swaybrace pad (1) for water break free surface. If water break occurs, repeat steps a through d.

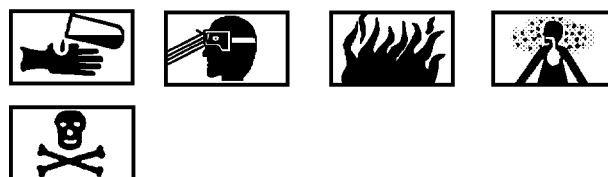
f. Dry swaybrace pad (1) for 30 minutes or until dry at 150°F (65°C) maximum.

g. Clean mounting surface of shell assembly for swaybrace pad (1) with clean cheesecloth dampened with methyl ethyl ketone. Repeat until cheesecloth shows no discoloration.

h. Air dry shell assembly for 30 minutes at room temperature.

i. Lightly sand shell assembly mounting surface with abrasive cloth.

j. Wipe off sanding dust with clean cheesecloth, brush, or vacuum.



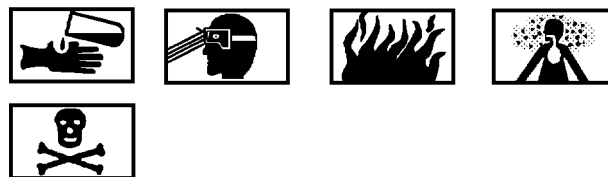
Adhesive

22

k. Prepare adhesive by mixing 100 parts A to 50 parts B by weight. Working life of adhesive is 40 minutes (A1-F18AC-SRM-200).

l. Apply a thin film of adhesive to mating surfaces of swaybrace pad (1) and shell assembly. Place nylon monofilament line at 1-inch intervals in bond line to control thickness.

m. Install swaybrace pad (1) on shell assembly and apply pressure for complete contact.

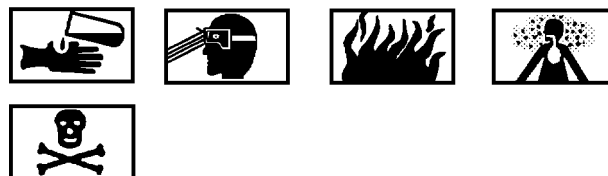


Methyl Ethyl Ketone

8

n. Remove excess adhesive with clean cheesecloth dampened with methyl ethyl ketone.

o. Cure adhesive 5 days at room temperature.



Sealing Compound

13

p. Apply sealing compound around perimeter of each swaybrace pad (1).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

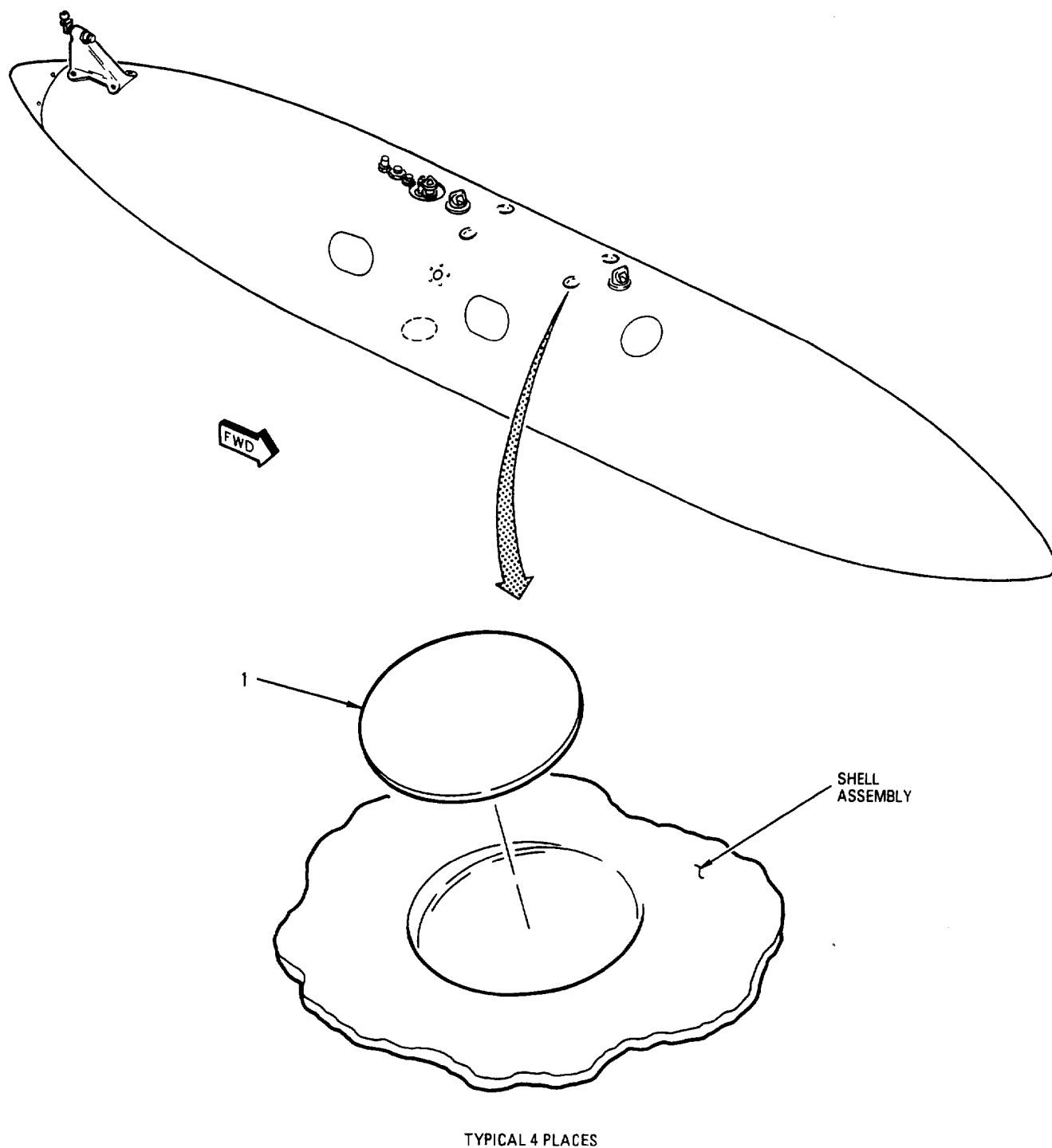


Figure 1. External Fuel Tank (Cylindrical) Swaybrace Pad (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK									
		(CYLINDRICAL) SWAYBRACE PAD									
1	74A551054-2001	.							4		PAOZZ
		PAD - SWAYBRACE, EXTERNAL									
		FUEL TANK (76301)									

Figure 1. External Fuel Tank (Cylindrical) Swaybrace Pad (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**EXTERNAL FUEL TANK AIR PRESSURE REGULATOR
(5L-P102)**

EXTERNAL FUEL SYSTEM

Title	WP Number
External Fuel Tank Air Pressure Regulator, 161353 THRU 161741	093 01
External Fuel Tank Air Pressure Regulator, 161742 AND UP	093 02

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EXTERNAL FUEL TANK AIR PRESSURE REGULATOR
(5L-P102)****EXTERNAL FUEL SYSTEM****EFFECTIVITY: 161353 THRU 161741****Reference Material**

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuel System	A1-F18AC-460-200
Refuel/Transfer Test, External Fuel System	WP007 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000

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Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	M83248/1-117
Packing (4)	M83248/1-214
Packing (2)	M83248/1-218
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Make sure electrical power is off (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Remove door 42 (A1-F18AC-LMM-010).

d. Remove coupling (5, figure 1) (WP013 00).

e. Disconnect tube (1) and clamp (2) by removing attaching parts.

f. Remove couplings (12) (WP013 00) and manifold (3) attached to external fuel tank air pressure regulator check valve.

g. Disconnect electrical connector (10).

h. Remove coupling (7) (WP013 00).

i. Remove bolts (8), external fuel tank air pressure regulator (9), and attaching parts.

2. INSTALLATION.

a. Make sure electrical power is off (A1-F18AC-LMM-000).



Petrolatum, Technical

2

b. Lubricate new packings (4, 6, and 11, figure 1) with petrolatum.

c. Install packings (4, 6, and 11).

d. Position regulator (9) then install spacers, bolts, and washers (8).

e. Inspect and install coupling (7) (WP013 00), tube (1) and connect electrical connector (10).

f. Install external fuel tank air pressure regulator check valve, tube (13) and couplings (12) (WP013 00).

g. Install coupling (5) (WP013 00), clamp (2) and attaching parts.

h. Connect tube (1) to manifold (3).

i. Install door 42 (A1-F18AC-LMM-010).

j. Remove no power tag from external power receptacle.

k. Do external fuel tanks transfer test (A1-F18AC-460-200, WP007 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

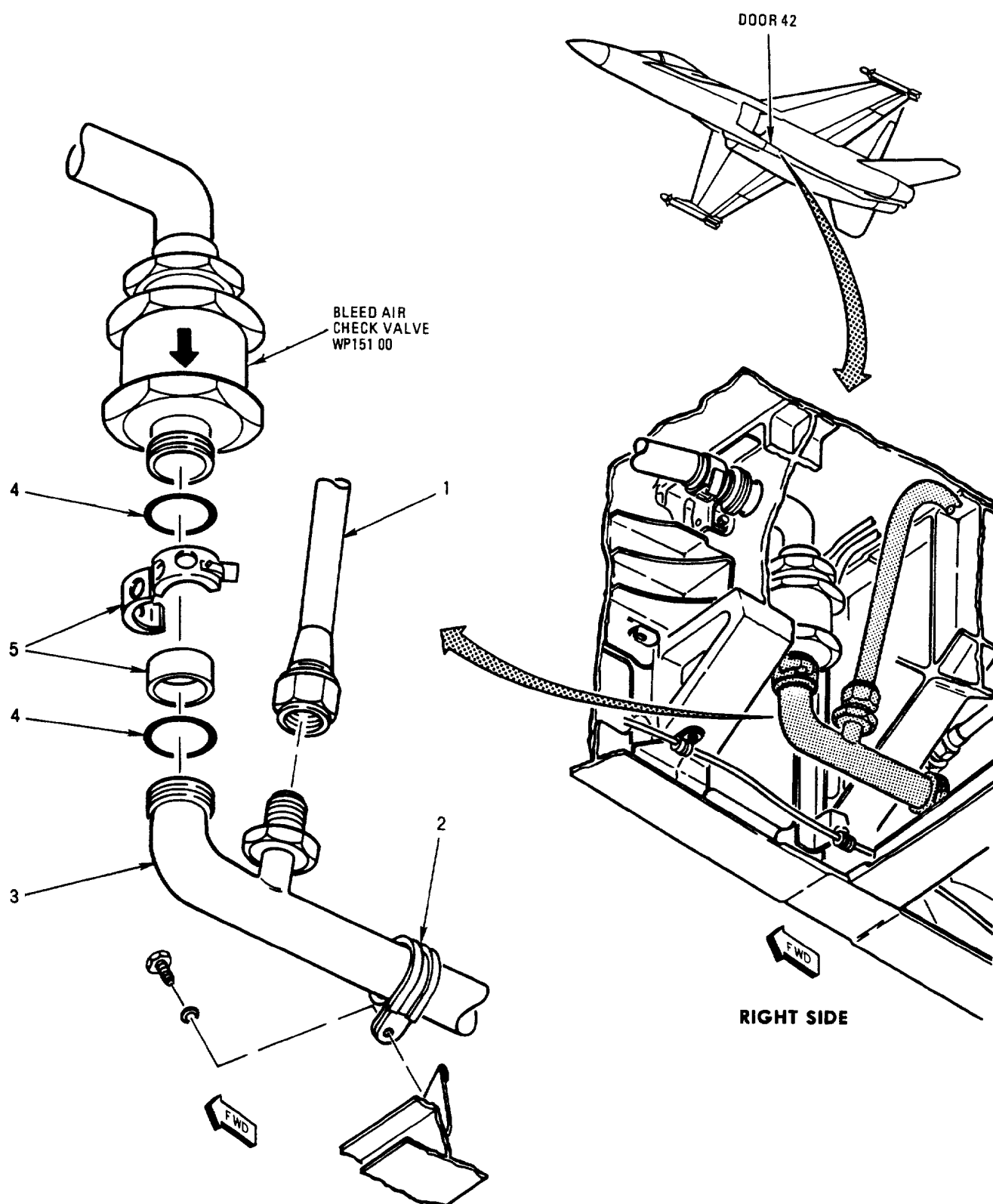


Figure 1. External Fuel Tank Air Pressure Regulator (5L-P102) (Sheet 1)

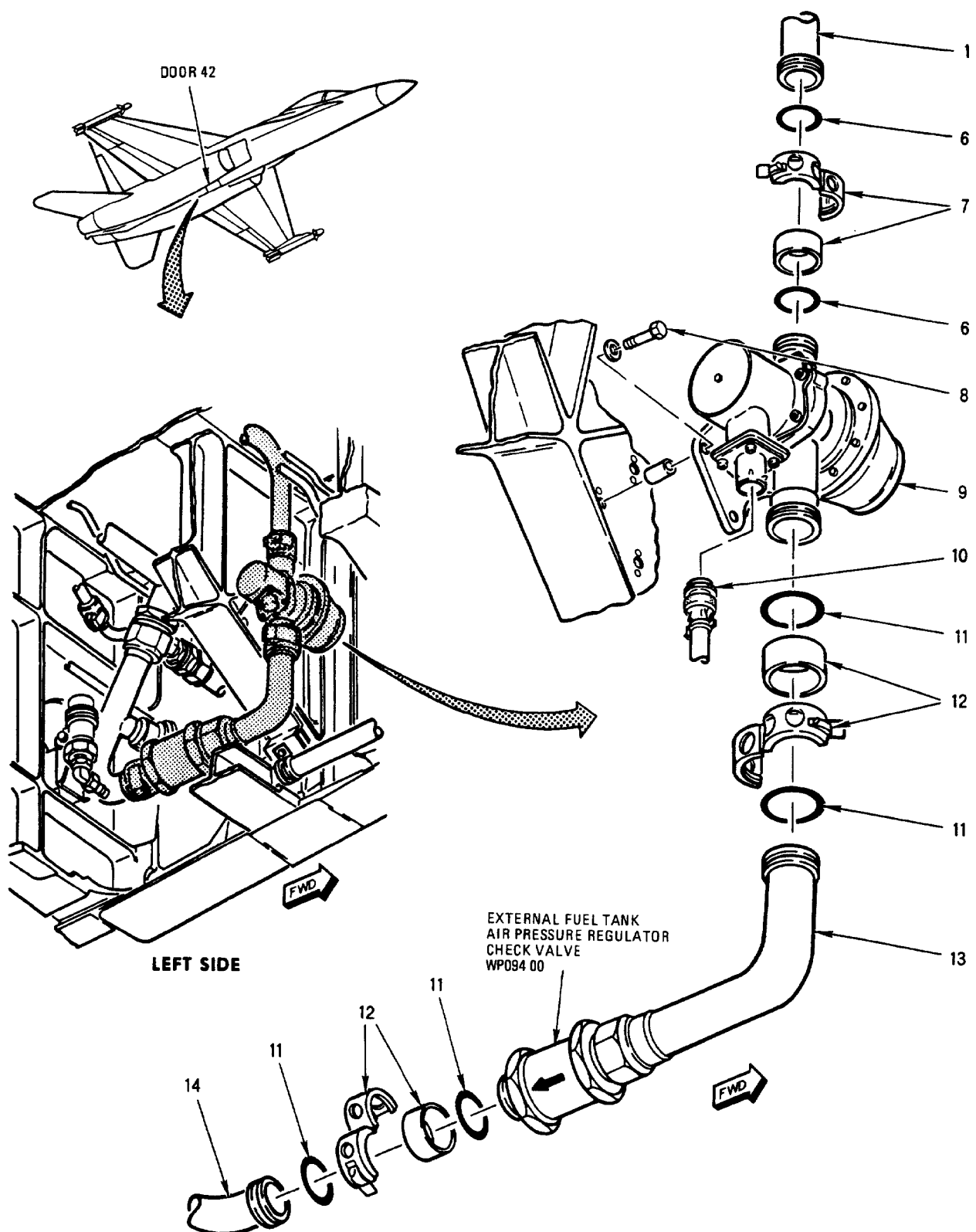


Figure 1. External Fuel Tank Air Pressure Regulator (5L-P102) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		EXTERNAL FUEL TANK AIR PRESSURE REGULATOR (5L-P102)			
1	74A586584-1005	. TUBE ASSEMBLY, METAL - FUEL PRESS SYS, Y476 (76301)	1	A	XBOZZ
	74A586584-1013	. TUBE ASSEMBLY, METAL - FUEL PRESS SYS, Y476 (76301)	1	B	XBOZZ
2	JM44LC33WD20	. CLAMP, LOOP (22175) (MCDONNELL SPEC ST9M630D20)	1		PAOZZ
	NAS673V3	. BOLT (AP)	1		PAOZZ
	AN960JD10L	. WASHER (AP)	1		PAOZZ
3	74A586583-1003	. MANIFOLD - FUEL PRESSURE SYSTEM, Y470.50 - Y488.00 (76301)	1	E	PAOZZ
	74A586583-1007	. MANIFOLD - FUEL PRESSURE SYSTEM, Y470.50 - Y488.00 (76301)	1	F	PAOZZ
4	M83248/1-218	. PACKING	2		PAOZZ
5	W901K20DE	. COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-20D) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-20A	. SEE ABOVE (24984)	1		PAOZZ
	W901F20DE	. SEE ABOVE (79326) (MCDONNELL SPEC 7M550-20D) (INCLUDES SLEEVE)	1	*	PAOZZ
6	M83248/1-117	. PACKING	2		PAOZZ
7	W901K12DE	. COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-12D) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-12A	. SEE ABOVE (24984)	1		PAOZZ
	W901F12DE	. SEE ABOVE (79326) (MCDONNELL SPEC 7M550-12D) (INCLUDES SLEEVE)	1	*	PAOZZ
8	NAS674V11	. BOLT	3		PAOZZ
	AN960JD10L	. WASHER (USE WITH INDEX 8)	3		PAOZZ
	NAS43DD4-36	. SPACER (USE WITH INDEX 8)	3		PAOZZ
9	2760088-111	. REGULATOR, AIR PRESSURE, AIRCRAFT FUEL TANK, EXT (EXTERNAL FUEL TANK AIR PRESSURE REGULATOR) (92003) (MCDONNELL SPEC 74-550204-111) (5L-P102)	1		PAODD
10	MS27467T9B35S	. CONNECTOR, PLUG (5P-P102)	1		PAOZZ
11	M83248/1-214	. PACKING	4		PAOZZ
12	W901K16DE	. COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-16D) (INCLUDES SLEEVE)	2		PAOZZ
	14J12-16A	. SEE ABOVE (24984)	2		PAOZZ
	W901F16DE	. SEE ABOVE (79326) (MCDONNELL SPEC 7M550-16D) (INCLUDES SLEEVE)	2	*	PAOZZ
13	74A586716-1001	. TUBE ASSEMBLY, METAL - FUEL PRESS SYS, Y478.50 (76301)	1		PAOZZ
14	74A586719-1001	. TUBE ASSEMBLY, METAL - FUEL PRESSURIZATION SYSTEM, Y484 (76301)	1	C	PAOZZ
	74A586719-1005	. TUBE ASSEMBLY, METAL - FUEL PRESSURIZATION SYSTEM, Y484 (76301)	1	D	PAOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)					

Figure 1. External Fuel Tank Air Pressure Regulator (5L-P102) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161353 THRU 161519	F/A-18A/B
B	161520 THRU 161741	F/A-18A/B
C	161353 THRU 161704	F/A-18A/B
D	161705 THRU 161741	F/A-18A/B
E	161353 THRU 161736	F/A-18A/B
F	161737 THRU 161741	F/A-18A/B

Figure 1. External Fuel Tank Air Pressure Regulator (5L-P102) (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL TANK AIR PRESSURE REGULATOR
(5L-P102)

EXTERNAL FUEL SYSTEM

EFFECTIVITY: 161742 AND UP

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuel System	A1-F18AC-460-200
Refuel/Transfer Test, External Fuel System	WP007 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000

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Illustration	3
Parts List	4
Installation	2
Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a. Make sure electrical power is off (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Remove door 42 (A1-F18AC-LMM-010).

d. Remove couplings (6 and 8, figure 1) (WP013 00).

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	M83248/1-117
Packing (2)	M83248/1-214
Petrolatum, Technical	VV-P-236 (CAGE 81348)

e. Disconnect connector (3).

f. Remove external fuel tank air pressure regulator (2) and attaching parts.

2. INSTALLATION.

a. Make sure electrical power is off (A1-F18AC-LMM-000).

b. Prepare mating surfaces of regulator (2, figure 1) and tubes (5 and 9) for electrical bonding. After installation, apply sealant (A1-F18AC-LMM-000).



Petrolatum, Technical

2

c. Lubricate new packings (7 and 4) with petrolatum.

d. Position regulator (2) then install attaching parts.

e. Install couplings (6 and 8) (WP013 00).

f. Connect connector (3).

g. Install door 42 (A1-F18AC-LMM-010).

h. Remove no power tag from external power receptacle.

i. Do external fuel tanks transfer test (A1-F18AC-460-200, WP007 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

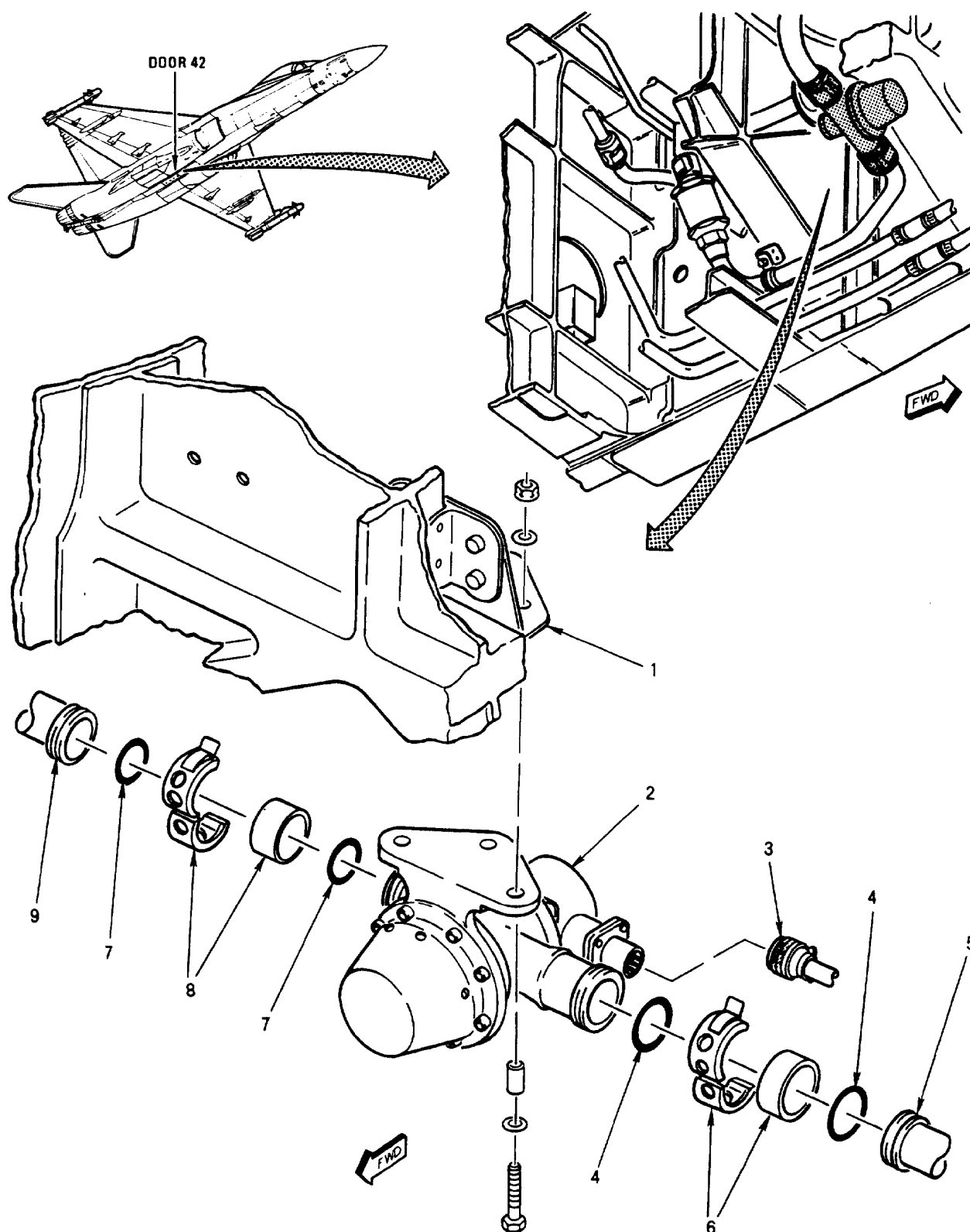


Figure 1. External Fuel Tank Air Pressure Regulator (5L-P102) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1 2 3 4 5 6 7			
		EXTERNAL FUEL TANK AIR PRESSURE REGULATOR (5L-P102)			
1	74A586728-1053	. BRACKET ASSY (76301)	1	A	XBOOO
	74A586728-2107	. BRACKET (76301)	1	B	XBOOO
	NAS674V4	. BOLT (AP)	4		PAOZZ
	AN960JD10L	. WASHER (AP)	4		PAOZZ
	NAS1291C4M	. NUT (AP)	4		PAOZZ
	F29339-01-4	. NUT, PLATE (15653) (MCDONNELL SPEC ST3M470C4M) (USE WITH INDEX 1)	3	A*	PAOZZ
	F10965-1-4	. NUT, PLATE (72962) (MCDONNELL SPEC ST3M470C4M) (USE WITH INDEX 1)	3	A*	PAOZZ
	NS103597-048	. SEE ABOVE (80539)	3	A*	PAOZZ
	MS20426AD3-7	. RIVET (AP)	2		PAOZZ
2	2760088-111	. REGULATOR, AIR PRESSURE AIRCRAFT FUEL TANK, EXT (EXTERNAL FUEL TANK AIR PRESSURE REGULATOR) (92003) (MCDONNELL SPEC 74-550204-111) (5L-P102)	1		PAODD
	NAS674V11	. BOLT (AP)	3	C	PAOZZ
	NAS674V6	. BOLT (AP)	3	D	PAOZZ
	AN960JD416L	. WASHER (AP) (UNDER HEAD)	3	A	PAOZZ
	NAS43DD4-36	. SPACER (AP)	3	C	PAOZZ
	AN960JD416L	. WASHER (AP) (UNDER HEAD AND NUT)	6	B	PAOZZ
	NAS1291C4M	. NUT (AP)	3	B	PAOZZ
3	MS27467T9R35S	. CONNECTOR, PLUG (5P-P102)	1		PAOZZ
4	M83248/1-214	. PACKING	2		PAOZZ
5	74A586740-1003	. TUBE ASSEMBLY, METAL - AIR PRESS SYSTEM, Y477.796 (76301)	1	A	XBOZZ
	74A586740-1005	. SEE ABOVE	1	B	XBOZZ
6	W901K16DE	. COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-16D) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-16A	. SEE ABOVE (24984)	1		PAOZZ
	W901F16DE	. SEE ABOVE (79326) (MCDONNELL SPEC 7M550-16D) (INCLUDES SLEEVE)	1	*	PAOZZ
7	M83248/1-117	. PACKING	2		PAOZZ
8	W901K12DE	. COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-12D) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-12A	. SEE ABOVE (24984)	1		PAOZZ
	W901F12DE	. SEE ABOVE (79326) (MCDONNELL SPEC 7M550-12D) (INCLUDES SLEEVE)	1	*	PAOZZ
9	74A586576-1009	. TUBE ASSEMBLY, METAL - AIR PRESS, Y474.823 (76301) (SUPERSEDES 74A586576-1007)	1		XBOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)					
CODE USABLE ON MODEL					
A 161742 THRU 162462 F/A-18A/B					
B 162463 & UP F/A-18A/B					
C 161742 THRU 161761 F/A-18A/B					
D 161924 & UP F/A-18A/B					

Figure 1. External Fuel Tank Air Pressure Regulator (5L-P102) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****EXTERNAL FUEL TANK AIR PRESSURE REGULATOR CHECK VALVE
(5VAR620)****EXTERNAL FUEL SYSTEM**

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Airborne Weapon/Stores Loading Manual	A1-F18AE-LWS-000
Fuel System	A1-F18AC-460-200
Refuel/Transfer Test, External Fuel System	WP007 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Manual	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Weapons Control System	A1-F18AC-740-300
Aircraft Fuselage Centerline SUU-62/A Pylon	WP036 00

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161742 AND UP	2
Support Equipment Required	2

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (4)	M83248/1-214
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL - 161353 THRU 161741.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Defuel external tank (A1-F18AC-PCM-000).

d. Remove centerline tank if installed (A1-F18AE-LWS-000).

e. Remove centerline pylon if installed (A1-F18AC-740-300, WP036 00).

f. Remove door 42 (A1-F18AC-LMM-010).

g. Remove couplings (5, figure 1) (WP013 00), tube (2) and check valve (3).

NOTE

Step h is not required when tube and check valve are removed for other maintenance.

h. Remove tube (2) from check valve (3).

2. REMOVAL - 161742 AND UP.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Defuel external tank (A1-F18AC-PCM-000).

d. Remove centerline tank if installed (A1-F18AE-LWS-000).

e. Remove centerline pylon if installed (A1-F18AC-740-300, WP036 00).

f. Remove door 42 (A1-F18AC-LMM-010).

g. Remove couplings (2, figure 2) (WP013 00), clamps (3 and 4), tube (5) and check valve (6).

NOTE

Step h is not required when tube and check valve are removed for other maintenance.

h. Remove check valve (6) from tube (5).

3. INSTALLATION - 161353 THRU 161741.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Install tube (2, figure 1) on check valve (3).



Petrolatum, Technical

2

c. Lubricate new packings (1) with petrolatum.

d. Install check valve (3) with tube (2) and packings (1); inspect and install couplings (5) (WP013 00).

e. Install door 42 (A1-F18AC-LMM-010).

f. Install centerline pylon, if required (A1-F18AC-748-300, WP036 00).

g. Install centerline tank if required (A1-F18AE-LWS-000).

h. Remove no power tag from external power receptacle.

i. Do external fuel system transfer test (A1-F18AC-460-200, WP007 00).

4. INSTALLATION - 161742 AND UP.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Install tube (5, figure 2), clamps (3 and 4) on check valve (6).



Petrolatum, Technical

c. Lubricate new packings (1) with petrolatum.

d. Install check valve (6) on tube (5).

e. Install check valve (6) with tube (5) and couplings (2) (WP013 00).

f. Install door 42 (A1-F18AC-LMM-010).

g. If required, install centerline pylon, (A1-F18AC-748-300, WP036 00).

h. If required, install centerline tank (A1-F18AE-LWS-000).

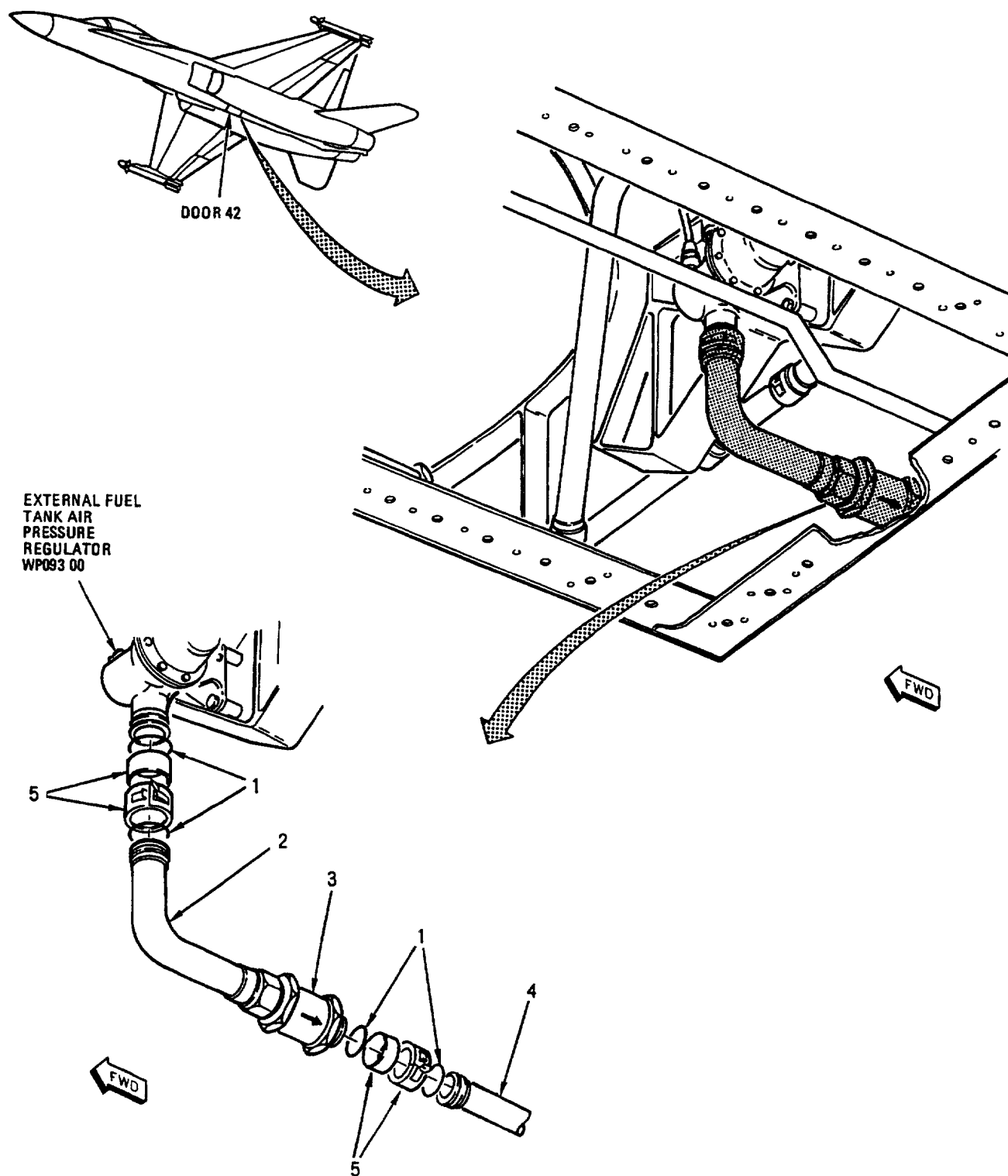
i. Remove no power tag from external power receptacle.

j. Do external fuel tanks transfer test (A1-F18AC-460-200, WP007 00).

2

5. ILLUSTRATED PARTS BREAKDOWN.

6. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



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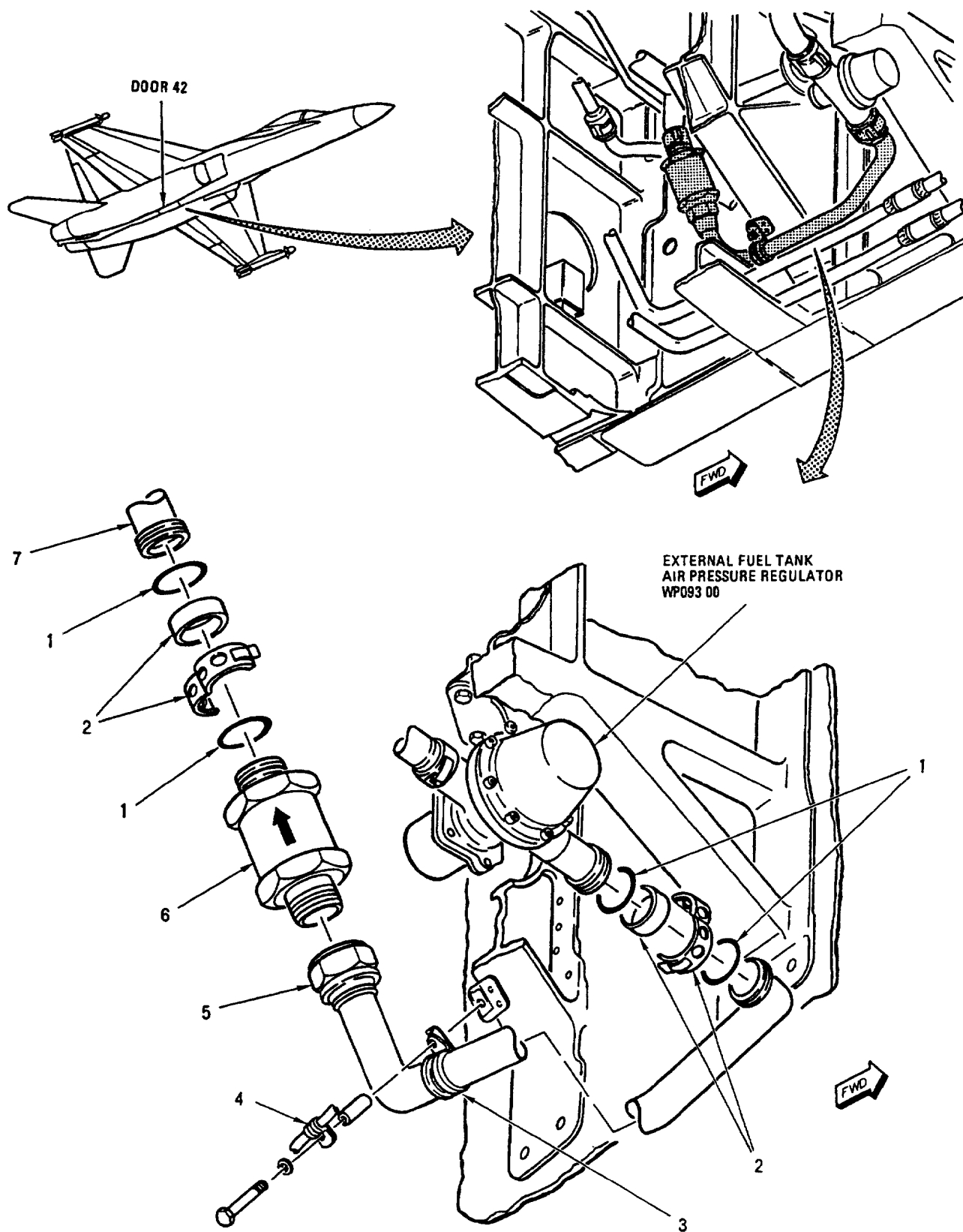
Figure 1. External Fuel Tank Air Pressure Regulator Check Valve (5VAR620) - 161353
THRU 161741 (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK AIR PRESSURE									
		REGULATOR CHECK VALVE - 161353									
		THRU 161741 (5VAR620)									
1	M83248/1-214	.	PACKING						4		PAOZZ
2	74A586716-1001	.	TUBE ASSEMBLY, METAL - FUEL						1		PAOZZ
			PRESS SYS, Y478.50 (76301)								
3	CV99-158-16	.	VALVE, CHECK (EXTERNAL FUEL						1		PAOZZ
			TANK AIR PRESSURE REGULATOR								
			CHECK VALVE) (91816)								
			(MCDONNELL SPEC								
			74B580185-113) (5VAR620)								
	P112-533-16	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74B580185-101)								
4	74A586719-1001	.	TUBE ASSEMBLY, METAL - FUEL						1	A	PAOZZ
			PRESSURIZATION SYSTEM, Y484 (76301)								
	74A586719-1005	.	TUBE ASSEMBLY, METAL - FUEL						1	B	PAOZZ
			PRESSURIZATION SYSTEM,								
			Y484 (76301)								
5	W901K16DE	.	COUPLING, CLAMP, GROOVED						2		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-16D) (INCLUDES SLEEVE)								
	14J12-16A	.	SEE ABOVE (24984)						2		PAOZZ
	W901F16DE	.	SEE ABOVE (79326) (MCDONNELL						2	*	PAOZZ
			SPEC 7M550-16D)								
			(INCLUDES SLEEVE)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161704	F/A-18A/B
B	161705 & UP	F/A-18A/B

**Figure 1. External Fuel Tank Air Pressure Regulator Check Valve (5VAR620) - 161353
THRU 161741 (Sheet 2)**



09400201

Figure 2. External Fuel Tank Air Pressure Regulator Check Valve (5VAR620) - 161742 and UP (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		EXTERNAL FUEL TANK AIR PRESSURE								
		REGULATOR CHECK VALVE								
		(5VAR620) - 161742 AND UP								
1	M83248/1-214	.	PACKING					4		PAOZZ
2	W901K16DE	.	COUPLING, CLAMP, GROOVED					1		PAOZZ
			(79326) (MCDONNELL SPEC							
			7M765-16D) (INCLUDES SLEEVE)							
	14J12-16A	.	SEE ABOVE (24984)					2		PAOZZ
	W901F16DE	.	SEE ABOVE (79326) (MCDONNELL					2	*	PAOZZ
			SPEC 7M550-16D) (INCLUDES							
			SLEEVE)							
3	JM44LC33WD16	.	CLAMP (22175) (MCDONNELL					1		PAOZZ
			SPEC ST9M630D16)							
4	MS21919WDG4	.	CLAMP					1		PAOZZ
	NAS673V20	.	BOLT (AP)					1		PAOZZ
	AN960JD10L	.	WASHER (AP)					1		PAOZZ
	NAS43DD3-64	.	SPACER (AP)					1		PAOZZ
	A11144-7-3	.	NUT, CLIP (AP) (72962) (MCDONNELL					1	*	PAOZZ
			SPEC ST3M523C3M)							
	130031	.	SEE ABOVE (76530)					1	*	PAOZZ
5	74A586740-1003	.	TUBE ASSEMBLY, METAL - AIR PRESS					1	A	XBOZZ
			SYSTEM, Y477.796 (76301)							
	74A586740-1005	.	SEE ABOVE					1	B	XBOZZ
6	CV99-158-16	.	VALVE, CHECK (EXTERNAL FUEL TANK					1		PAOZZ
			AIR PRESSURE REGULATOR CHECK							
			VALVE) (91816) (MCDONNELL							
			SPEC 74B580185-113) (5VAR620)							
	P112-533-16	.	SEE ABOVE (MCDONNELL					1	*	PAOZZ
			SPEC 74B580185-101)							
7	74A586720-1005	.	MANIFOLD, FLUID AIRCRAFT - PRESS					1		PAOZZ
			SYSTEM WING CROSSOVER (76301)							
* ALTERNATE OR EQUIVALENT										
PARTS. (WP002 00)										

CODE	USABLE ON	MODEL
A	161742 THRU 162462	F/A-18A/B
B	162463 & UP	F/A-18A/B

Figure 2. External Fuel Tank Air Pressure Regulator Check Valve (5VAR620) - 161742 and UP (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE With IPB

EXTERNAL FUEL TANK FUEL QUANTITY TRANSMITTER
(5A-Y062)

EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Ground Support Equipment	WP009 01
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Wiring Repair with Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000
Aircraft Fuel Cells and Internal/External Tanks	NAVAIR 01-1A-35

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External Fuel Tank (Elliptical) Fuel Quantity Transmitter, Figure 1	6
Materials Required	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

Materials Required

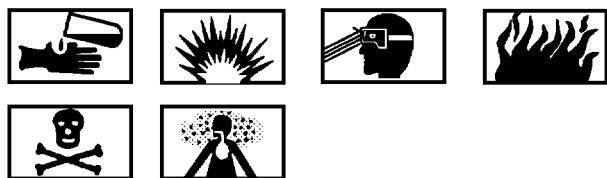
Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 25 Inch-Pounds	-
Toxic and Combustible Gas Indicator	72-8001

None

1. GENERAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. Defuel external tank (A1-F18AC-PCM-000).



Jet Fuel

1

c. Drain residual fuel (A1-F18AC-PCM-000).

d. Remove doors 505 and 506 (elliptical tank) or 516 and 517 (cylindrical tank) (A1-F18AC-LMM-010).

e. Purge tank with exhaust blower until a safe indication is displayed on combustible gas indicator (WP009 01). Refer to NAVAIR 01-1A-35 for general purging instructions.

2. FUEL QUANTITY TRANSMITTER.

3. REMOVAL.

a. On elliptical tank (figure 1), do substeps below:

(1) Remove clamps (1) and attaching parts; disconnect transmitter (2).

(2) Remove clamp (6) and attaching parts.

(3) Remove screws (3, 4, and 5) and transmitter (2).

b. On cylindrical tank (figure 2), do substeps below:

(1) Open clamp (1) and disconnect transmitter (3) from grommet (4).

(2) Remove clamp (8, detail b) and attaching parts.

(3) On transmitter 472995-314 remove screws (5, 6, and 7).

NOTE

Loose washer(s) may be installed on terminals.

(4) On transmitter 472995-414 remove screws (9, 10, and 11) and washers (12, 13, and 14) (if installed).

(5) Remove transmitter (3).

c. To prevent contamination, cover door openings.

4. INSTALLATION.

a. On elliptical tank (figure 1), do substeps below:

(1) Position transmitter (2, detail A) in external tank, then connect wires to terminal block and torque as listed below: (QA)

NOTE

To make sure of positive terminal lug contact; washer(s) (7, 8, and 9) are required when replacing a 472995-310 with a 472995-410 transmitter.

(a) If replacing a 472995-310 transmitter with a 472995-410 transmitter, two washers (7 and 9) maximum and one washer (8) can be installed to be sure of positive terminal lug contact.

(b) On terminal 1 torque screw (4) 7 inch-pounds.

(c) On terminal 2 torque screw (3) 12 inch-pounds.

(d) On terminal 3 torque screw (5) 16 inch-pounds.

(2) Install and torque bolt for clamp (6) to 7 inch-pounds. (QA)

(3) Install clamps (1) and attaching parts.

(4) Install doors 505 and 506 (A1-F18AC-LMM-010).

b. On cylindrical tank (figure 2), do substeps below:

(1) Position transmitter (3) in external tank per substeps below:

NOTE

To make sure of positive terminal lug contact; washer(s) are required when replacing a 472995-314 with a 472995-414 transmitter.

(a) If replacing a 472995-314 transmitter with a 472995-414 transmitter, two washers (12 and 14) maximum and one washer (13) can be installed to be sure of positive terminal lug contact.

(b) 472995-314 transmitter must be installed with terminal block facing aft, then connect wires to terminal block and torque as listed below: (QA)

(c) 472995-414 transmitter must be installed so that terminal block is $45^{\circ} \pm 5^{\circ}$ off centerline (detail A), then connect wires to terminal block and torque as listed below: (QA)

(d) On terminal 1 torque screw (6 or 11) 7 inch-pounds.

(e) On terminal 2 torque screw (5 or 9) 12 inch-pounds.

(f) On terminal 3 torque screw (7 or 10) 16 inch-pounds.

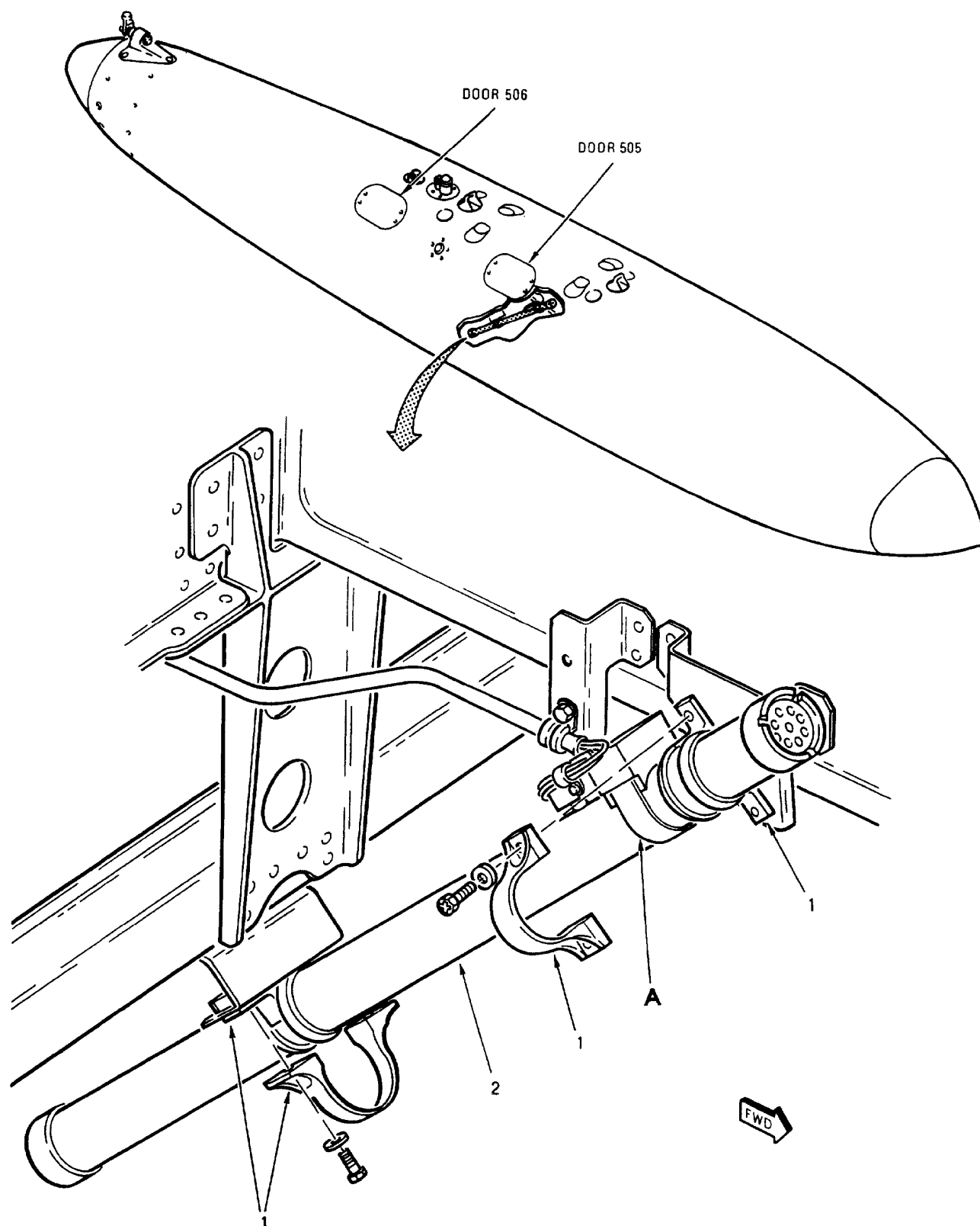
(2) Install and torque screw for clamp (8) to 7 inch-pounds. (QA)

(3) Position transmitter (3) in grommet (4) and close clamp (1).

(4) Install doors 516 and 517 (A1-F18AC-LMM-010).

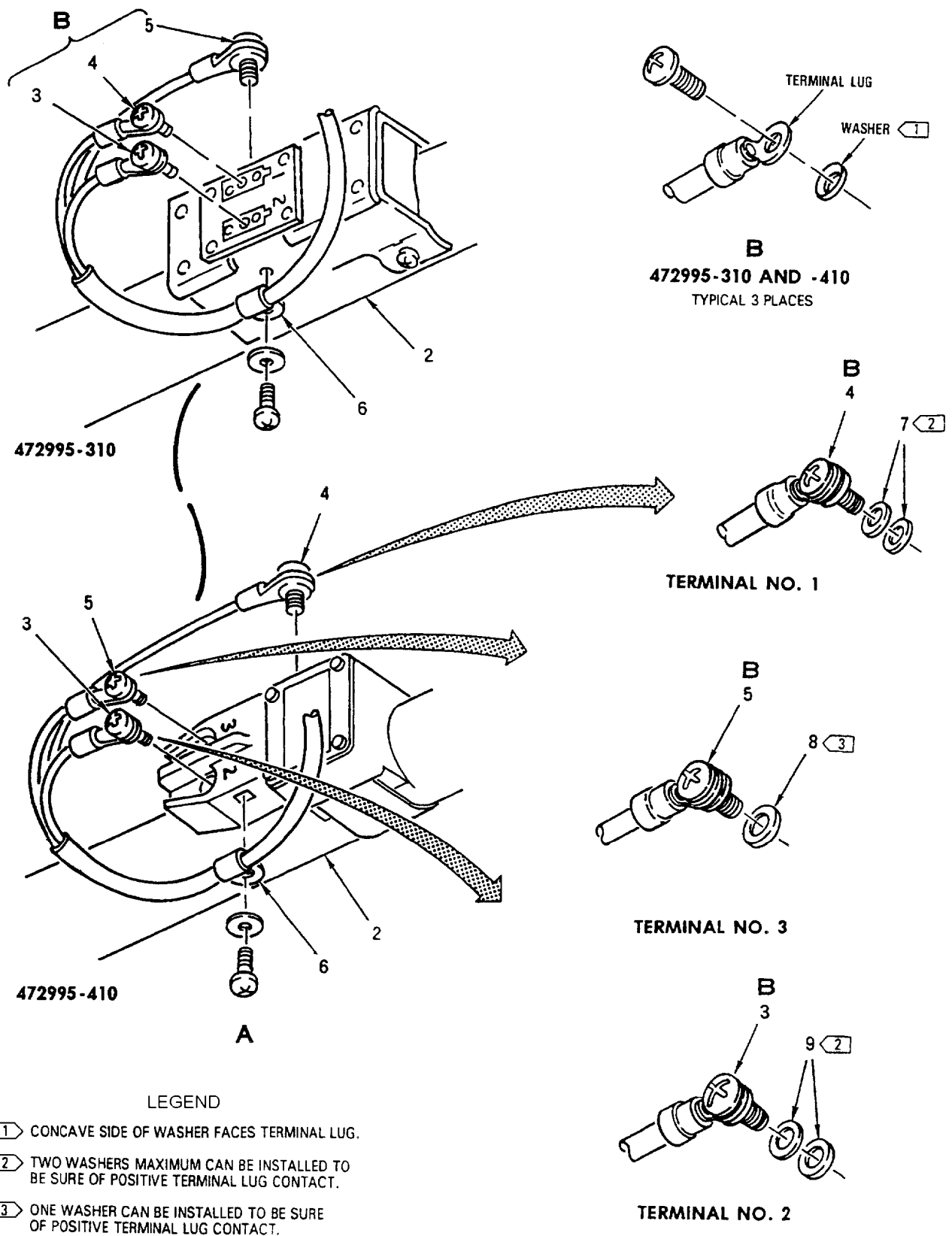
5. ILLUSTRATED PARTS BREAKDOWN.

6. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



09600101

Figure 1. External Fuel Tank (Elliptical) Fuel Quantity Transmitter (5A-Y062) (Sheet 1)



09600102

Figure 1. External Fuel Tank (Elliptical) Fuel Quantity Transmitter (5A-Y062) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK (ELLIPTICAL).....									
		FUEL QUANTITY TRANSMITTER (5A-Y062)									
1	NAS1787A24	.	CLAMP	.....					2		PAOZZ
	SC2671-3-16	.	SCREW, MACHINE (AP) (06950).	.....					2	*	PAOZZ
			(MCDONNELL SPEC 3M933-3-16)								
	PBF1580-3-16	.	SEE ABOVE (27624).....						2	*	PAOZZ
	AIC944-3-16	.	SEE ABOVE (06725).....						2	*	PAOZZ
	MA5933-3-16	.	SEE ABOVE (58845).....						2	*	PAOZZ
	AN960C10	.	WASHER (AP).....						2		PAOZZ
2	472995-410 @	.	TRANSMITTER, LIQUID QUANTITY,.....						1		PAOZZ
			EXTERNAL TANK (EXTERNAL FUEL TANK FUEL QUANTITY TRANSMITTER) (89305) (MCDONNELL SPEC 74-580056-227) (5A-Y062)								
	472995-310 @	.	SEE ABOVE.....						1	*	PAOZZ
3	466604-008	.	SCREW, EXTERNALLY RELIEVED.....						1	*	PAOZZ
			BODY (89305) (MCDONNELL SPEC ST3M560-5)								
	MA3560-5	.	SEE ABOVE (58845).....						1	*	PAOZZ
	1AM121070-5	.	SEE ABOVE (58251).....						1	*	PAOZZ
	FIT7043-5	.	SEE ABOVE (58998).....						1	*	PAOZZ
	396648	.	WASHER, CONICAL (89305).....						1	*	PAOZZ
			(MCDONNELL SPEC ST4M159-08) (USE WITH INDEX 3)								
	448-3-2	.	SEE ABOVE (86968).....						1	*	PAOZZ
4	466604-006	.	SCREW, EXTERNALLY RELIEVED.....						1	*	PAOZZ
			BODY (89305) (MCDONNELL SPEC ST3M560-4)								
	MA3560-4	.	SEE ABOVE (58845).....						1	*	PAOZZ
	1AM121070-4	.	SEE ABOVE (58251).....						1	*	PAOZZ
	FIT7043-4	.	SEE ABOVE (58998).....						1	*	PAOZZ
	396973	.	WASHER, CONICAL (89305).....						1	*	PAOZZ
			(MCDONNELL SPEC ST4M159-06) (USE WITH INDEX 4)								
	448-3-1	.	SEE ABOVE (86968).....						1	*	PAOZZ
5	466604-010	.	SCREW, EXTERNALLY RELIEVED.....						1	*	PAOZZ
			BODY (89305) (MCDONNELL SPEC ST3M560-6)								
	MA3560-6	.	SEE ABOVE (58845).....						1	*	PAOZZ
	1AM121070-6	.	SEE ABOVE (58251).....						1	*	PAOZZ
	FIT7043-6	.	SEE ABOVE (58998).....						1	*	PAOZZ
	396974	.	WASHER, CONICAL (89305).....						1	*	PAOZZ
			(MCDONNELL SPEC ST4M159-3) (USE WITH INDEX 5)								
	448-3-3	.	SEE ABOVE (86968).....						1	*	PAOZZ
6	MS25281-F2	.	CLAMP	.....					1		PAOZZ
	VDP0002-3 @	.	BOLT, ASSEMBLED WASHER (AP).....						1	*	PAOZZ
			(06710) (MCDONNELL SPEC 3M881V3-3)								
	111026-3-3 @	.	SEE ABOVE (80539).....						1	*	PAOZZ
	T981-3-3 @	.	SEE ABOVE (97928).....						1	*	PAOZZ
	SC2670-3-3 @	.	SEE ABOVE (06950).....						1	*	PAOZZ
	D16175-10-3 @	.	SEE ABOVE (08524).....						1	*	PAOZZ
7	AN960C6	.	WASHER	.....					2		PAOZZ
8	AN960C10L	.	WASHER	.....					1		PAOZZ
9	AN960C8	.	WASHER	.....					2		PAOZZ

Figure 1. External Fuel Tank (Elliptical) Fuel Quantity Transmitter (5A-Y062)
(Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

@ REPLACE CLAMP AND BOLT SUPPLIED
WITH REPLACEMENT TRANSMITTER
WITH ITEMS FLAGGED WITH THIS SYMBOL.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

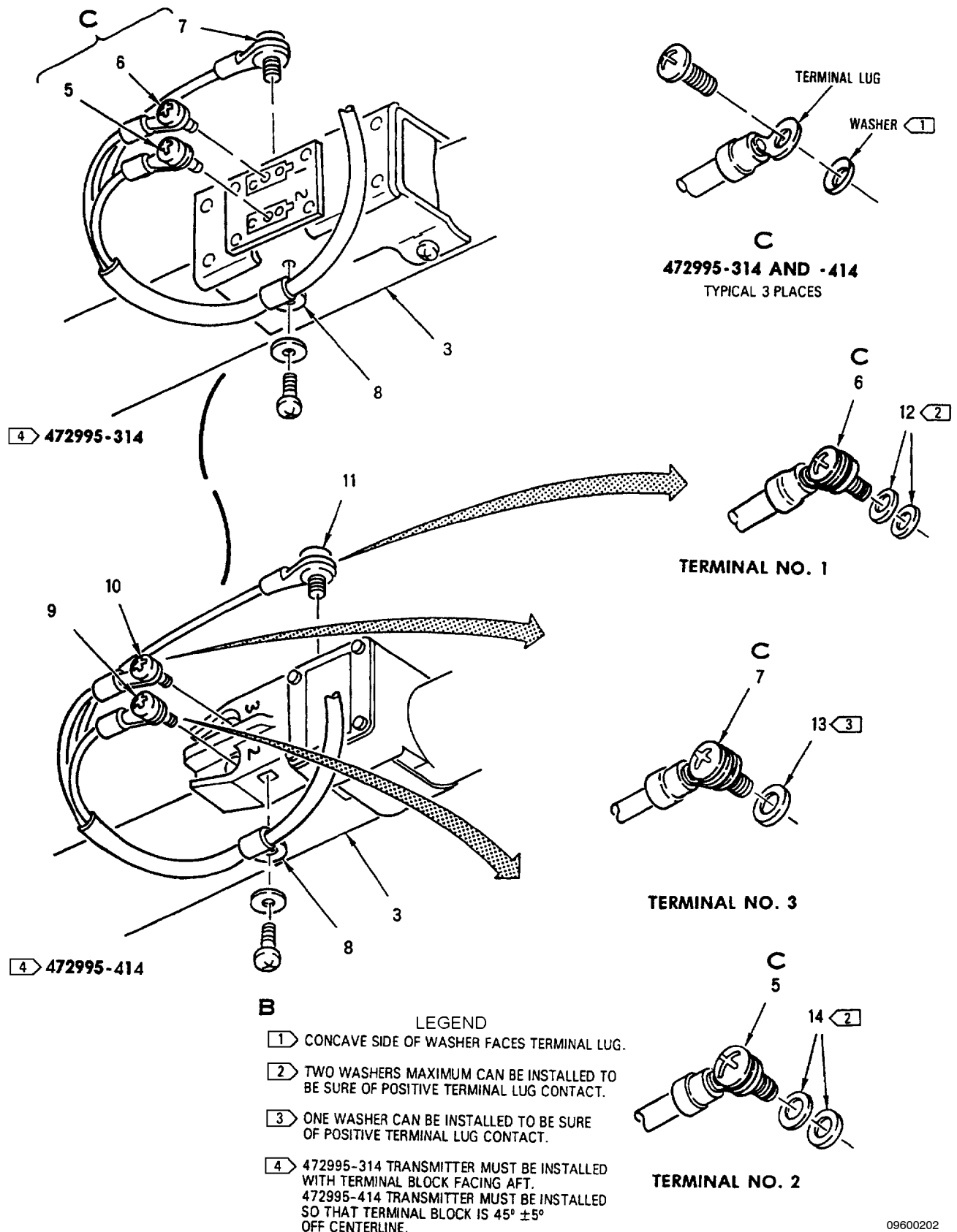


Figure 2. External Fuel Tank (Cylindrical) Fuel Quantity Transmitter (5A-Y062)
(Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		EXTERNAL FUEL TANK (CYLINDRICAL) FUEL								
		QUANTITY TRANSMITTER (5A-Y062)								
1	7C34-24-2A	.	CLAMP, QUICK RELEASE (71286)					1		PAOZZ
			(MCDONNELL SPEC ST9M427W24)							
	SC2671-3-8	.	SCREW, MACHINE (AP) (06950)					2	*	PAOZZ
			(MCDONNELL SPEC 3M933-3-8)							
	PBF1580-3-8	.	SEE ABOVE (27624)					2	*	PAOZZ
	AIC944-3-8	.	SEE ABOVE (06725)					2	*	PAOZZ
	MA5933-3-8	.	SEE ABOVE (58845)					2	*	PAOZZ
	AN960JD10	.	WASHER (AP)					2		PAOZZ
2	74A551768-1001	.	BRACKET, GAGING PROBE, UPPER (76301)					1		XBOOO
	SC2671-3-9	.	SCREW, MACHINE (AP) (06950)					4	*	PAOZZ
			(MCDONNELL SPEC 3M933-3-9)							
	PBF1580-3-9	.	SEE ABOVE (27624)					4	*	PAOZZ
	AIC944-3-9	.	SEE ABOVE (06725)					4	*	PAOZZ
	MA5933-3-9	.	SEE ABOVE (58845)					4	*	PAOZZ
	AN960JD10	.	WASHER (AP)					4		PAOZZ
	MS21062L3	.	NUT, PLATE (USE WITH INDEX 2)					4	*	PAOZZ
	MS21070L3	.	NUT, PLATE (USE WITH INDEX 2)					4	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)					2		-
3	472995-414 @	.	TRANSMITTER, LIQUID QUANTITY,					1		PAOZZ
			EXTERNAL TANK (EXTERNAL FUEL TANK FUEL QUANTITY TRANSMITTER) (89305) (MCDONNELL SPEC 74-580056-243) (5A-Y062)							
	472995-314 @	.	SEE ABOVE (89305) (MCDONNELL					1	*	PAOZZ
			SPEC 74-580056-243) (5A-Y062)							
4	Z-1221	.	GROMMET (76385) (MCDONNELL					1		PAOZZ
			SPEC 74B558002-201)							
5	466604-008 φ	.	SCREW, MACHINE (89305) (MCDONNELL					1	*	PAOZZ
			SPEC ST3M560-5)							
	MA3560-5 φ	.	SEE ABOVE (58845)					1	*	PAOZZ
	1AM121070-5 φ	.	SEE ABOVE (58251)					1	*	PAOZZ
	FIT7043-5 φ	.	SEE ABOVE (58998)					1	*	PAOZZ
	396648 φ	.	WASHER, CONICAL (89305) (MCDONNELL					1	*	PAOZZ
			SPEC ST4M159-08) (USE WITH INDEX 5)							
	448-3-2 φ	.	SEE ABOVE (86968)					1	*	PAOZZ
6	466604-006 φ	.	SCREW, MACHINE (89305) (MCDONNELL					1	*	PAOZZ
			SPEC ST3M560-4)							
	MA3560-4 φ	.	SEE ABOVE (58845)					1	*	PAOZZ
	1AM121070-4 φ	.	SEE ABOVE (58251)					1	*	PAOZZ
	FIT7043-4 φ	.	SEE ABOVE (58998)					1	*	PAOZZ
	396973 φ	.	WASHER, CONICAL (89305) (MCDONNELL					1	*	PAOZZ
			SPEC ST4M159-06) (USE WITH INDEX 6)							
	448-3-1 φ	.	SEE ABOVE (86968)					1	*	PAOZZ
7	466604-010 φ	.	SCREW, MACHINE (89305) (MCDONNELL					1	*	PAOZZ
			SPEC ST3M560-6)							
	MA3560-6 φ	.	SEE ABOVE (58845)					1	*	PAOZZ
	1AM121070-6 φ	.	SEE ABOVE (58251)					1	*	PAOZZ
	FIT7043-6 φ	.	SEE ABOVE (58998)					1	*	PAOZZ
	396974 φ	.	WASHER, CONICAL (89305) (MCDONNELL					1	*	PAOZZ
			SPEC ST4M159-3) (USE WITH INDEX 7)							
	448-3-3 φ	.	SEE ABOVE (86968)					1	*	PAOZZ
8	MS25281-2 @	.	CLAMP					1		PAOZZ
	VDP0002-3 @	.	BOLT, ASSEMBLED WASHER (AP) (06710)					1	*	PAOZZ
			(MCDONNELL SPEC 3M881V3-3)							
	111026-3-3 @	.	SEE ABOVE (80539)					1	*	PAOZZ
	T981-3-3 @	.	SEE ABOVE (97928)					1	*	PAOZZ

Figure 2. External Fuel Tank (Cylindrical) Fuel Quantity Transmitter (5A-Y062)
(Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
9	SC2670-3-3 @	.	SEE ABOVE (06950)	.	.	.	.	.	1	*	PAOZZ
	D16175-10-3 @	.	SEE ABOVE (08524)	.	.	.	.	.	1	*	PAOZZ
	398421-008 ¢	.	SCREW, MACHINE (89305)	.	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M560-08)	.	.	.	.	.
	MA3560-08 ¢	.	SEE ABOVE (58845)	.	.	.	.	.	1	*	PAOZZ
	1AM121070-08 ¢	.	SEE ABOVE (58251)	.	.	.	.	.	1	*	PAOZZ
10	FIT7043-08 ¢	.	SEE ABOVE (58998)	.	.	.	.	.	1	*	PAOZZ
	396648 ¢	.	WASHER CONICAL (89305)	.	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST4M159-08)	.	.	.	.	.
	448-3-2 ¢	.	SEE ABOVE (86968)	.	.	.	.	.	1	*	PAOZZ
	398421-010 ¢	.	SCREW, MACHINE (89305)	.	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M560-3)	.	.	.	.	.
11	MA3560-3 ¢	.	SEE ABOVE (58845)	.	.	.	.	.	1	*	PAOZZ
	1AM121070-3 ¢	.	SEE ABOVE (58251)	.	.	.	.	.	1	*	PAOZZ
	FIT7043-3 ¢	.	SEE ABOVE (58998)	.	.	.	.	.	1	*	PAOZZ
	396974 ¢	.	WASHER, CONICAL (589305)	.	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST4M159-3)	.	.	.	.	.
	448-3-3 ¢	.	SEE ABOVE (86968)	.	.	.	.	.	1	*	PAOZZ
12	398421-006 ¢	.	SCREW, MACHINE (89305)	.	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M560-06)	.	.	.	.	.
	MA3560-06 ¢	.	SEE ABOVE (58845)	.	.	.	.	.	1	*	PAOZZ
	1AM121070-06 ¢	.	SEE ABOVE (58251)	.	.	.	.	.	1	*	PAOZZ
	FIT7043-06 ¢	.	SEE ABOVE (58998)	.	.	.	.	.	1	*	PAOZZ
	396973 ¢	.	WASHER, CONICAL (89305)	.	.	.	.	.	1	*	PAOZZ
13		.	(MCDONNELL SPEC ST4M159-06)	.	.	.	.	.
	448-3-1 ¢	.	SEE ABOVE (86968)	.	.	.	.	.	1	*	PAOZZ
14	AN960C6	.	WASHER	.	.	.	.	.	2		PAOZZ
13	AN960C10L	.	WASHER	.	.	.	.	.	1		PAOZZ
14	AN960C8	.	WASHER	.	.	.	.	.	2		PAOZZ

@ REPLACE CLAMP AND BOLT SUPPLIED
WITH REPLACEMENT TRANSMITTER WITH
ITEMS FLAGGED TO THIS SYMBOL.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

¢ USE WITH 472995-414 TRANSMITTER.

φ USE WITH 472995-314 TRANSMITTER.

Figure 2. External Fuel Tank (Cylindrical) Fuel Quantity Transmitter (5A-Y062)
(Sheet 4)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
FUSELAGE TO PYLON FUEL COUPLING VALVE
(5VAR522)
EXTERNAL FUEL SYSTEM

Reference Material

Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Weapons Control System	A1-F18AC-740-300
Aircraft Centerline Pylon SUU-62/A	WP036 00

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Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29513-222
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Defuel aircraft (A1-F18AC-PCM-000).

d. Remove centerline pylon if installed (A1-F18AC-740-300, WP036 00).

e. If centerline pylon was not installed remove door 171 (A1-F18AC-LMM-010).

f. Position an approved safety container under valve (4, figure 1) to catch residual fuel.

g. Remove door 27 (A1-F18AC-LMM-010).

h. Remove bolts (6), washers (2), spacers (3 and 5), and valve (4).

i. Remove packings (1) from centerline pylon flame arrestor and valve (4).

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Lubricate new packings with petrolatum.



Petrolatum, Technical

2

c. Install packings (1, figure 1) on centerline pylon flame arrestor and valve (4).

d. Install valve (4), bolts (6), washers (2), and spacers (3 and 5).

e. Refuel aircraft and inspect for leaks (A1-F18AC-PCM-000).

f. Install door 27 (A1-F18AC-LMM-010).

g. If centerline pylon is to be installed, install pylon (A1-F18AC-740-300, WP036 00).

h. If centerline pylon is not to be installed, install door 171 (A1-F18AC-LMM-010).

i. Remove no power warning tag from external power receptacle.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

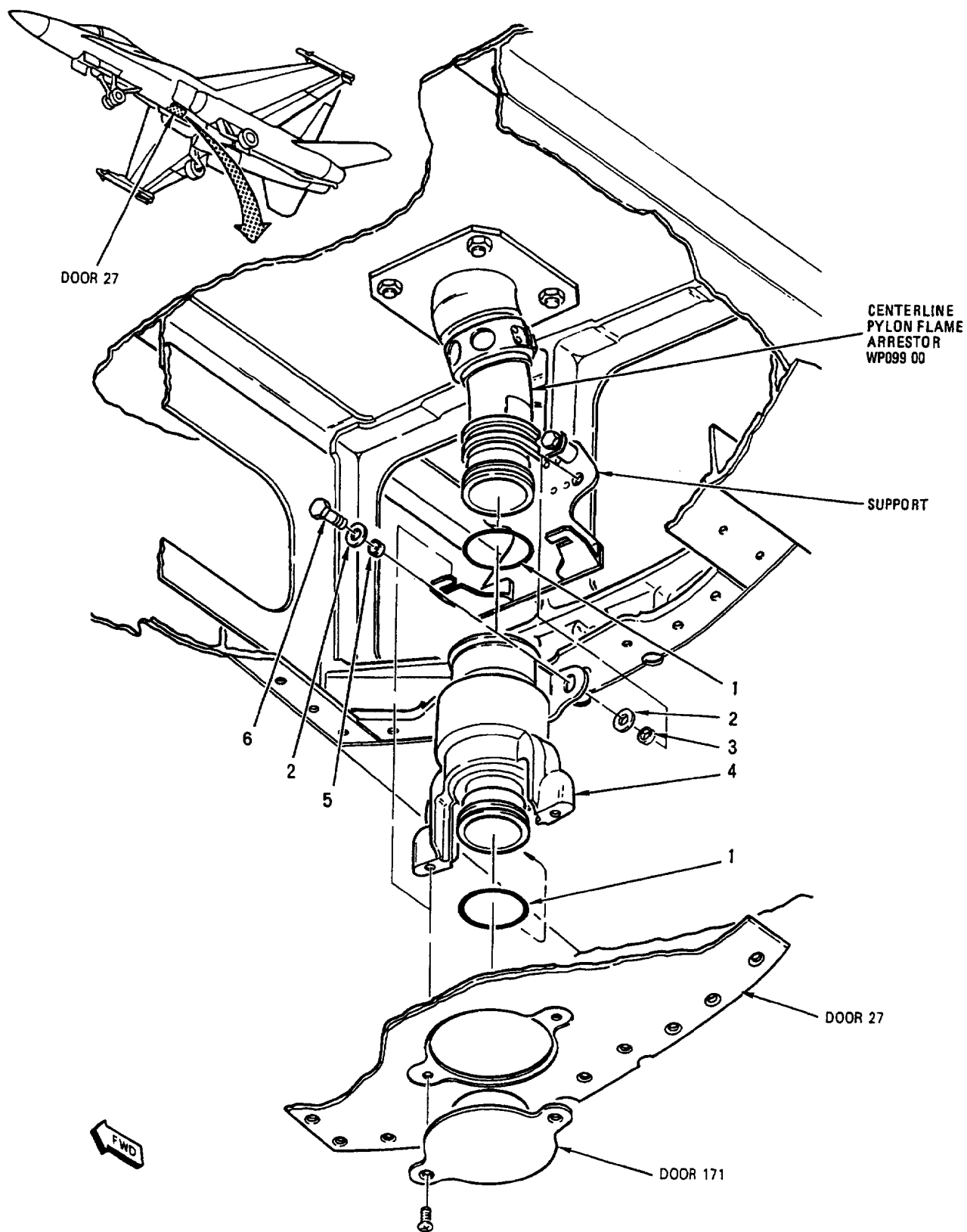


Figure 1. Fuselage to Pylon Fuel Coupling Valve (5VAR522) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUSELAGE TO PYLON FUEL COUPLING									
		VALVE (5VAR522)									
1	MS29513-222	.	PACKING						2		PAOZZ
2	AN960JD416	.	WASHER						4		PAOZZ
3	NAS43DD4-8	.	SPACER						2		PAOZZ
4	32400-115	.	VALVE, POPPET - FUEL/AIR COUPLING,						1	*	PAOZZ
		FUSELAGE TO PYLON, CL (FUSELAGE TO PYLON FUEL COUPLING VALVE) (04192) (MCDONNELL SPEC 74B550051-101) (5VAR522) (REPLACES 32400-105J AND 32400-105									
	716100-105	.	SEE ABOVE (96124) (REPLACES						1	*	PAOZZ
		32400-105J AND 32400-105)									
	32400-105	.	SEE ABOVE (04192) (MCDONNELL SPEC						1	A*	PAOZZ
		74-550051-105) (USE UNTIL EXHAUSTED)									
	32400-105J	.	SEE ABOVE (04192) (MCDONNELL SPEC						1	A*	PAOZZ
		74-550051-105) (USE UNTIL EXHAUSTED)									
5	NAS43DD4-13	.	SPACER						2		PAOZZ
6	NAS674V8	.	BOLT						2		PAOZZ

* ALTERNATE OR EQUIVALENT PARTS.

CODE	USABLE ON	MODEL
A	161353 THRU 161519	F/A-18A/B

Figure 1. Fuselage to Pylon Fuel Coupling Valve (5VAR522) (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL TANK TO PYLON FUEL AND AIR PROBES
(5VAY637 AND 5VAY642)

EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Airborne Weapons/Stores Loading Manual	A1-F18AC-LWS-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Structural Repair - General Information	A1-F18AC-SRM-200

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Record of Applicable Technical Directives

None

Support Equipment Required

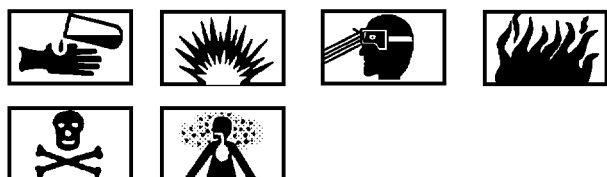
Materials Required (Cont)

None		None	
Materials Required		Nomenclature	Specification or Part Number
Nomenclature	Specification or Part Number	Packing	MS29513-222
Cheesecloth	301 (CAGE 97327)	Packing	MS29513-325
		Packing	M25988/1-112
		Packing	M25988/1-311
		Petrolatum, Technical	VV-P-236 (CAGE 81348)
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)	Sealing Compound	MIL-S-8802, Type 2, Class A-1/2 (CAGE 81349)

1. REMOVAL.

a. Observe applicable fuel tank maintenance precautions (WP013 00).

b. Defuel external tank (A1-F18AC-PCM-000).



Jet Fuel

1

c. Drain residual fuel (A1-F18AC-PCM-000).

d. Remove external tank (A1-F18AC-LWS-000).

e. Remove bolts (10, figure 1) and washers.

f. Remove cover (2), seal (3), retainer (4), and adapters (5 and 9).

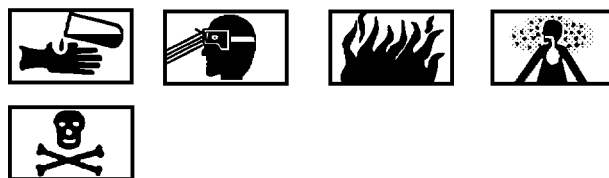
2. INSTALLATION.

Petrolatum, Technical

2

a. Lubricate packings (6 and 8, figure 1) with petrolatum and install on adapters (5 and 9).

b. Install adapters (5 and 9) with retainer (4), seal (3) with TOP up, cover (2) and bolts (10) and washers.



Isopropyl Alcohol

3

c. Apply sealing compound seal around cover (2), bolts (10) and washers per substeps below:

(1) Clean area to be sealed with cheesecloth moistened in isopropyl alcohol. Before the isopropyl alcohol evaporates, wipe from surface with clean, dry cheesecloth.

(2) Apply sealing compound around perimeter of cover (2).

(3) Apply a sample of sealing compound to a piece of scrap metal. Keep sample in same area as external fuel tank.

(4) Allow sealing compound to cure approximately 18 hours or until sample is rubber-like.

(5) Fillet weather seal bolts (10) and washers (A1-F18AC-SRM-200).

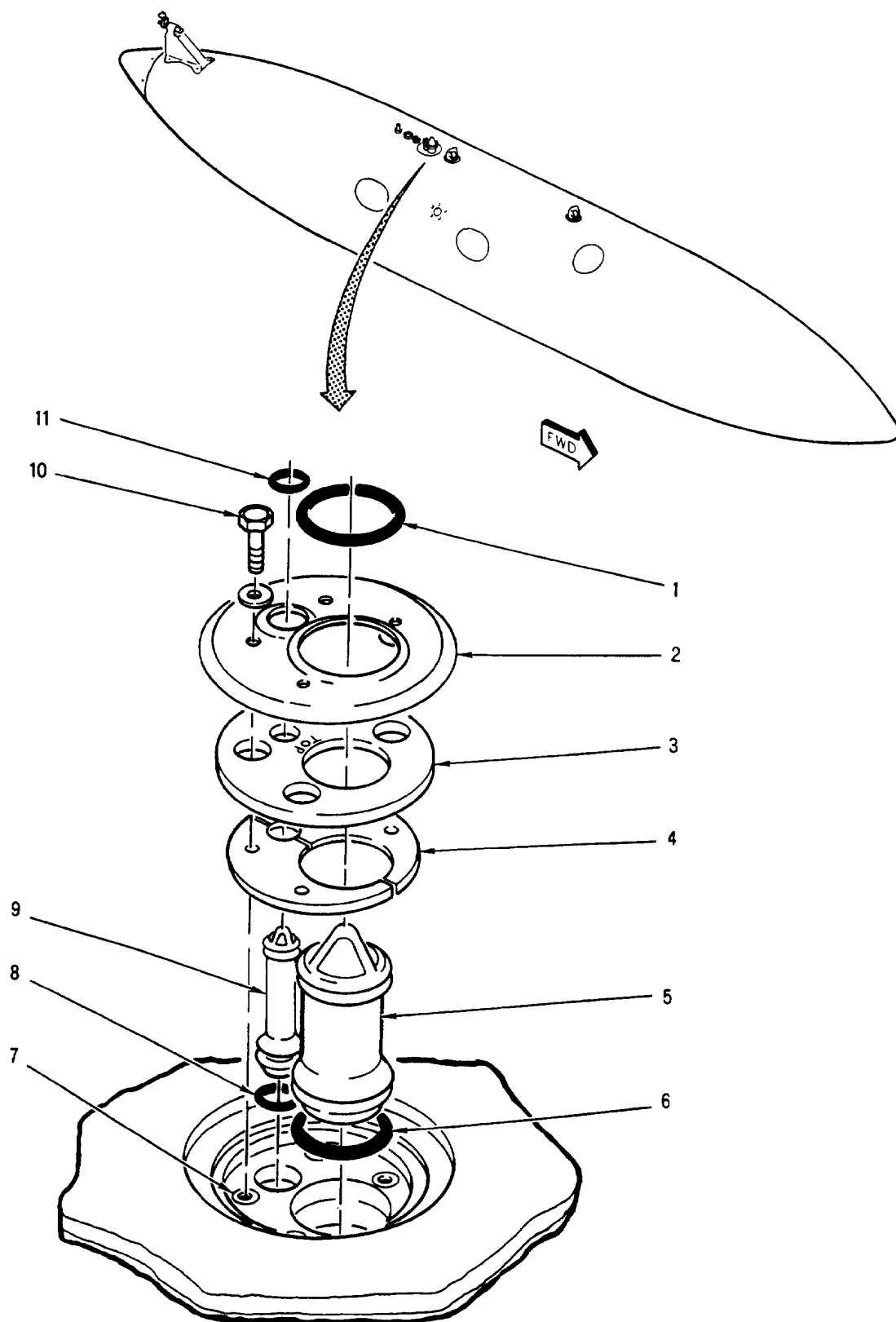
d. Lubricate with petrolatum packings (1 and 11) and install. Remove and wipe dry any lubricant from O-rings on top of fuel and air probes to avoid excessive swell during storage. Re-lubricate before tank installation on pylon.

e. Install external tank (A1-F18AC-LWS-000).

f. Do external fuel tanks transfer test (A1-F18AC-LMM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



09800101

Figure 1. External Fuel Tank to Pylon Fuel (5VAY637) and Air Probes (5VAY642)
(Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL TANK TO PYLON FUEL									
		(5VAY637) AND AIR PROBES (5VAY642)									
1	MS29513-222	.	PACKING						1		PAOZZ
2	74A550647-1001	.	COVER - WEATHER SEAL (76301)						1		PAOZZ
3	74A550646-2001	.	SEAL - WEATHER, INLET,						1		PAOZZ
			OUTLET (76301)								
4	74A550645-1001	.	RETAINER - INLET/OUTLET PROBES						1		PAOZZ
			(76301) (74A550645-2001 RETAINER								
			AND 74A550645-2003 RETAINER MAKE								
			UP A MATCHED SET)								
5	74A550631-2011	.	PROBE - FUEL, EXTERNAL TANK TO						1		PAOZZ
			PYLON (EXTERNAL TANK TO PYLON								
			FUEL PROBE) (76301) (5VAY637)								
6	MS29513-325	.	PACKING						1		PAOZZ
7	MS21209F4-15	.	INSERT						4		PAOZZ
8	M25988/1-311	.	PACKING						1		PAOZZ
9	74A550630-2007	.	PROBE, AIR EXTERNAL TANK TO						1		PAOZZ
			PYLON (EXTERNAL FUEL TANK TO								
			PYLON AIR PROBE) (76301) (5VAY642)								
10	VS3218-4-10	.	BOLT, CLOSE TOLERANCE (92215)						4	*	PAOZZ
			(MCDONNELL SPEC ST3M807-4-10)								
	SC2667-4-10	.	SEE ABOVE (06950)						4	*	PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 10)						4		PAOZZ
11	M25988/1-112	.	PACKING						1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. External Fuel Tank to Pylon Fuel (5VAY637) and Air Probes (5VAY642)
(Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****PYLON FLAME ARRESTORS****(5VAR525 CENTERLINE)****(5VAW673 WING)****EXTERNAL FUEL SYSTEM****This WP supersedes WP099 00, dated 1 October 1987.****Reference Material**

Fuel System	A1-F18AC-460-300
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Line Maintenance Access Doors	A1-F18AC-LMM-010
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Weapons Control System	A1-F18AC-740-300
Aircraft Wing Pylon SUU-63/A	WP034 00
Aircraft Fuselage Centerline Pylon SUU-62/A	WP036 00

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Wing Pylon Flame Arrestor (5VAW673) Figure 2	6

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 43	-	Replacement of 7M404/7M550 Fuel Couplings with Improved 7M765 Fuel Couplings (ECP MDA F/A-18-00143)	1 Mar 86	-
F/A-18 AAC 801	-	SSU-63/A Wing Pylon - Replacement of 7M550 Fuel Couplings With Improved 7M765 Fuel Couplings (ECP MDA F/A-18-00143)	1 Mar 86	-

1. CENTERLINE PYLON FLAME ARRESTOR.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
--------------	---------------------------------

Packing (4)	MS29513-222
Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

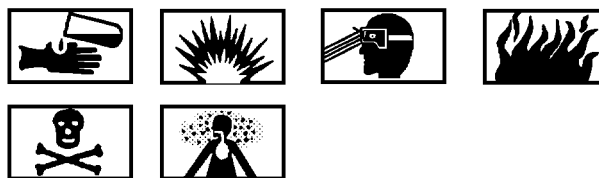
b. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

c. Defuel aircraft (A1-F18AC-PCM-000).

d. Remove centerline pylon if installed (A1-F18AC-740-300, WP036 00).

e. If centerline pylon was not installed, remove door 171 (A1-F18AC-LMM-010).

f. Remove door 27 (A1-F18AC-LMM-010).



Jet Fuel

1

g. Position an approved safety container under valve (7, figure 1) to catch residual fuel.

h. Remove valve (7), bolts (9), washers (5), spacers (6 and 8) and packings (2).

i. Remove bolts (13), washers (11), spacers (10) and strap (12).

j. Remove coupling (3) (WP013 00), and remove packings (2) and arrestor (4).

3. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of connector (1, figure 1), arrestor (4), valve (7) and structure for electrical bonding (A1-F18AC-LMM-000).



Petrolatum, Technical

2

c. Lubricate all new packings with petrolatum.

d. Install packings (2) on connector (1) and arrestor (4).

e. Install arrestor (4). Inspect and install coupling (3) (WP013 00). If applicable, safety coupling (3) with lockwire (WP013 00). (QA)

f. Install spacers (10), strap (12), bolts (13), and washers (11).

g. Install packing (2) on arrestor (4).

h. Install valve (7) to arrestor (4); install bolts (9), washers (5), and spacers (6 and 8).

i. Install packing (2) on valve (7).

j. Remove no power tag from external power receptacle.

k. Refuel aircraft and inspect for leaks (A1-F18AC-PCM-000).

l. Install door 27 (A1-F18AC-LMM-010).

m. If removed, install centerline pylon (A1-F18AC-740-300, WP036 00).

n. If centerline pylon is not installed, install door 171 (A1-F18AC-LMM-010).

4. WING PYLON FLAME ARRESTOR.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (3)	MS29513-222
Petrolatum, Technical	VV-P-236 (CAGE 81348)

5. REMOVAL.

a. Defuel aircraft (A1-F18AC-PCM-000).

b. Remove wing pylon (A1-F18AC-740-300, WP034 00)

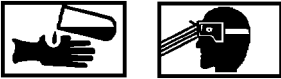
c. Remove door 501 (A1-F18AC-LMM-010).

d. Remove coupling (6, figure 2, detail A) (WP013 00). Remove packing (1).

e. Remove bolts (7), washers, nuts (2), and clamp (8).

f. Remove coupling (9), (WP013 00), and remove flame arrestor (3) and packings (1).

6. INSTALLATION.



Petrolatum, Technical

2

a. Lubricate new packings (1, figure 2, detail A) with petrolatum.

b. Install packings (1) and position flame arrestor (3). Inspect and install coupling (9) (WP013 00). If applicable, safety coupling (9) with lockwire (WP013 00). (QA)

c. Inspect and install coupling (6) (WP013 00). If applicable, safety coupling (6) with lockwire (WP013 00). (QA)

d. Install clamp (8) with bolts (7), washers, and nuts (2).

e. Install door 501 (A1-F18AC-LMM-010).

f. Install wing pylon (A1-F18AC-740-300, WP034 00).

g. Refuel aircraft (A1-F18AC-PCM-000) and inspect area for leaks.

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

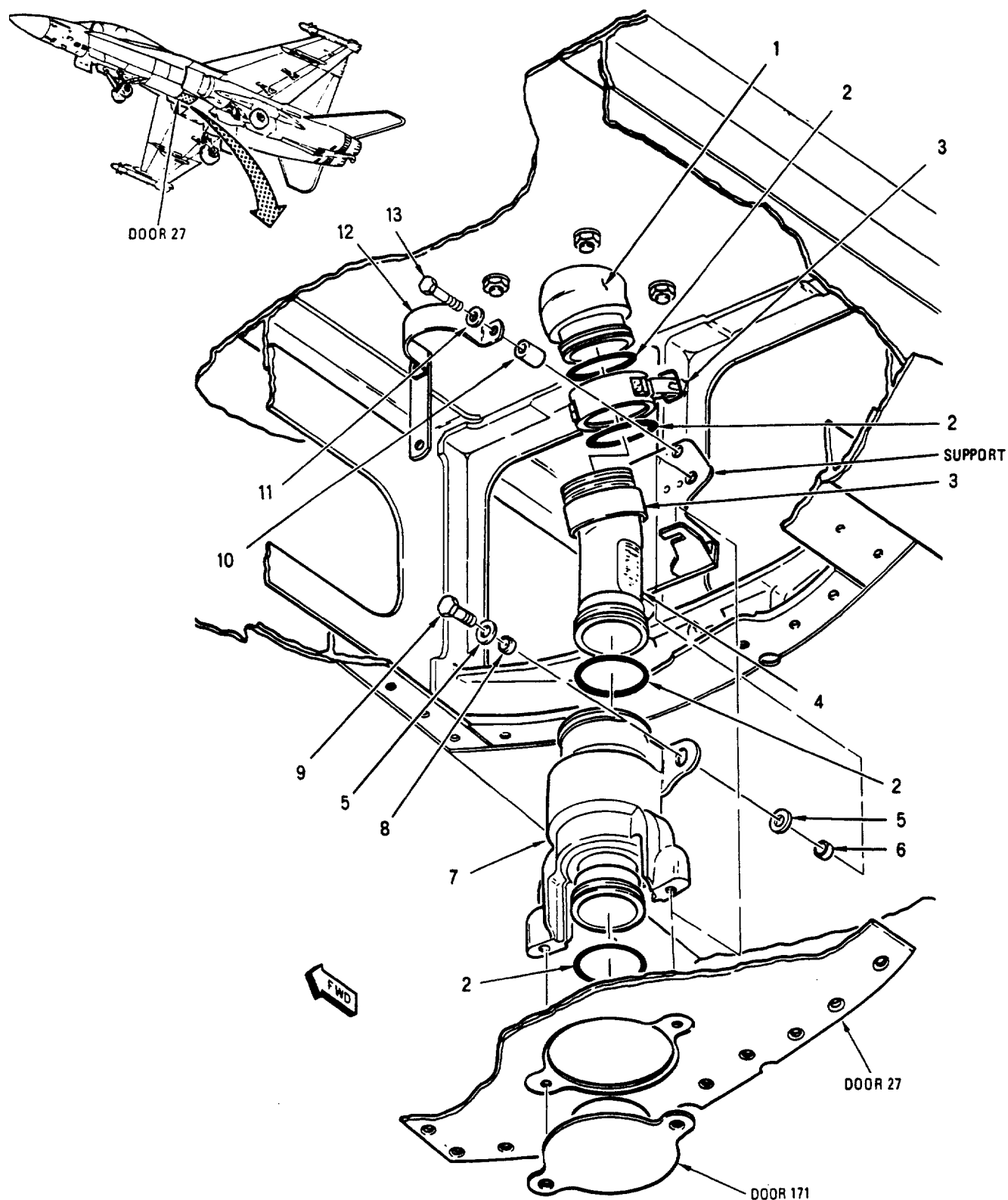


Figure 1. Centerline Pylon Flame Arrestor (5VAR525) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		CENTERLINE PYLON FLAME ARRESTOR (5VAR525)									
1	74A586559-2003	.	CONNECTOR - FUEL TRANS LINE CTR						1		XBOZZ
			PYLON TO TK NO. 2 (76301)								
2	MS29513-222	.	PACKING						4		PAOZZ
3	W901K24DE	.	COUPLING, CLAMP, GROOVED (79326)						1	B*	PAOZZ
			(MCDONNELL SPEC 7M765-24D)								
			(INCLUDES SLEEVE)								
	14J12-24A	.	SEE ABOVE (24984)						1	B*	PAOZZ
	W901F24DE	.	SEE ABOVE (79326) (MCDONNELL SPEC						1	C	PAOZZ
			7M550-24D) (INCLUDES SLEEVE)								
4	2408404-102	.	ARRESTOR, FLAME, C/L PYLON						1	*	PAOZZ
			(CENTERLINE PYLON FLAME								
			ARRESTOR) (98769) (MCDONNELL								
			SPEC 74-580140-105) (5VAR525)								
	AF86-3999	.	SEE ABOVE (99321)						1	*	PAOZZ
5	AN960JD416	.	WASHER						4		PAOZZ
6	NAS43DD4-8	.	SPACER						2		PAOZZ
7	32400-115	.	VALVE, POPPET - FUEL/AIR COUPLING,						1	*	PAOZZ
			FUSELAGE TO PYLON, CL (FUSELAGE								
			TO PYLON FUEL VALVE) (04192)								
			(MCDONNELL SPEC 74B550051-105)								
			(5VAR522) (REPLACES 32400-105J AND								
			32400-105)								
	716100-105	.	SEE ABOVE (96124) (REPLACES 32400-105J						1	*	PAOZZ
			AND 32400-105)								
	32400-105	.	SEE ABOVE (04192) (MCDONNELL SPEC						1	A*	PAOZZ
			74-550051-105) (USE UNTIL EXHAUSTED)								
	32400-105J	.	SEE ABOVE (04192) (MCDONNELL SPEC						1	A*	PAOZZ
			74-550051-105) (USE UNTIL EXHAUSTED)								
8	NAS43DD4-13	.	SPACER						2		PAOZZ
9	NAS674V8	.	BOLT						2		PAOZZ
10	NAS43DD3-50	.	SPACER						2		PAOZZ
11	AN960JD10L	.	WASHER						2		PAOZZ
12	JM44SC13D24	.	STRAP, RETAINING (22175) (MCDONNELL						1	*	PAOZZ
			SPEC 9M368D24)								
	TA12C53D24	.	SEE ABOVE (84971)						1	*	PAOZZ
	751-24-8	.	SEE ABOVE (83930)						1	*	PAOZZ
13	NAS673V17	.	BOLT (AP) (RIGHT SIDE)						1		PAOZZ
	NAS673V16	.	BOLT (AP) (LEFT SIDE)						1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161519	F/A-18A/B
B	161924 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 43	F/A-18A/B
C	161353 THRU 161761 BEFORE F/A-18 AFC 43	F/A-18A/B

Figure 1. Centerline Pylon Flame Arrestor (5VAR525) (Sheet 2)

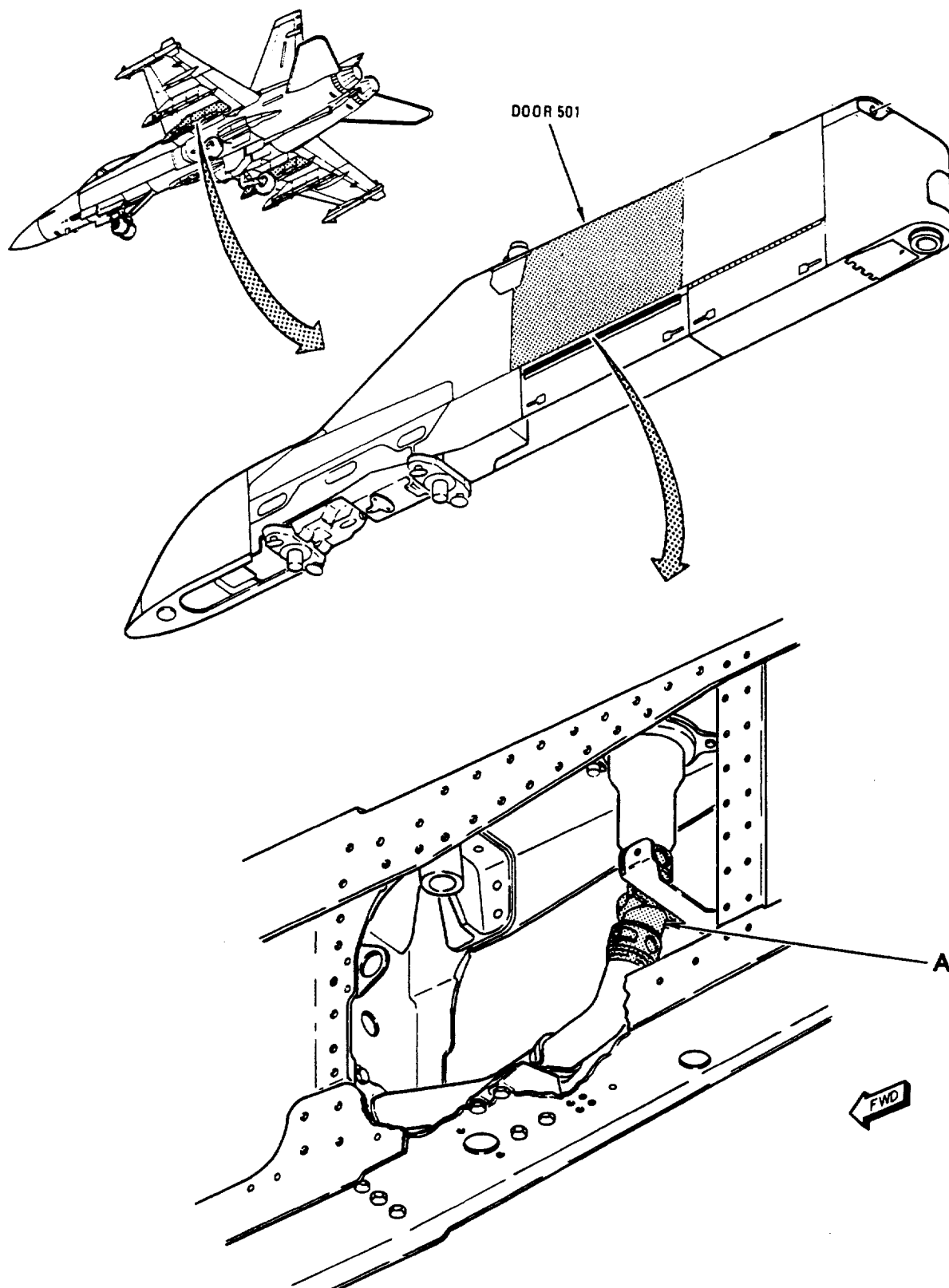


Figure 2. Wing Pylon Flame Arrestor (5VAW673) (Sheet 1)

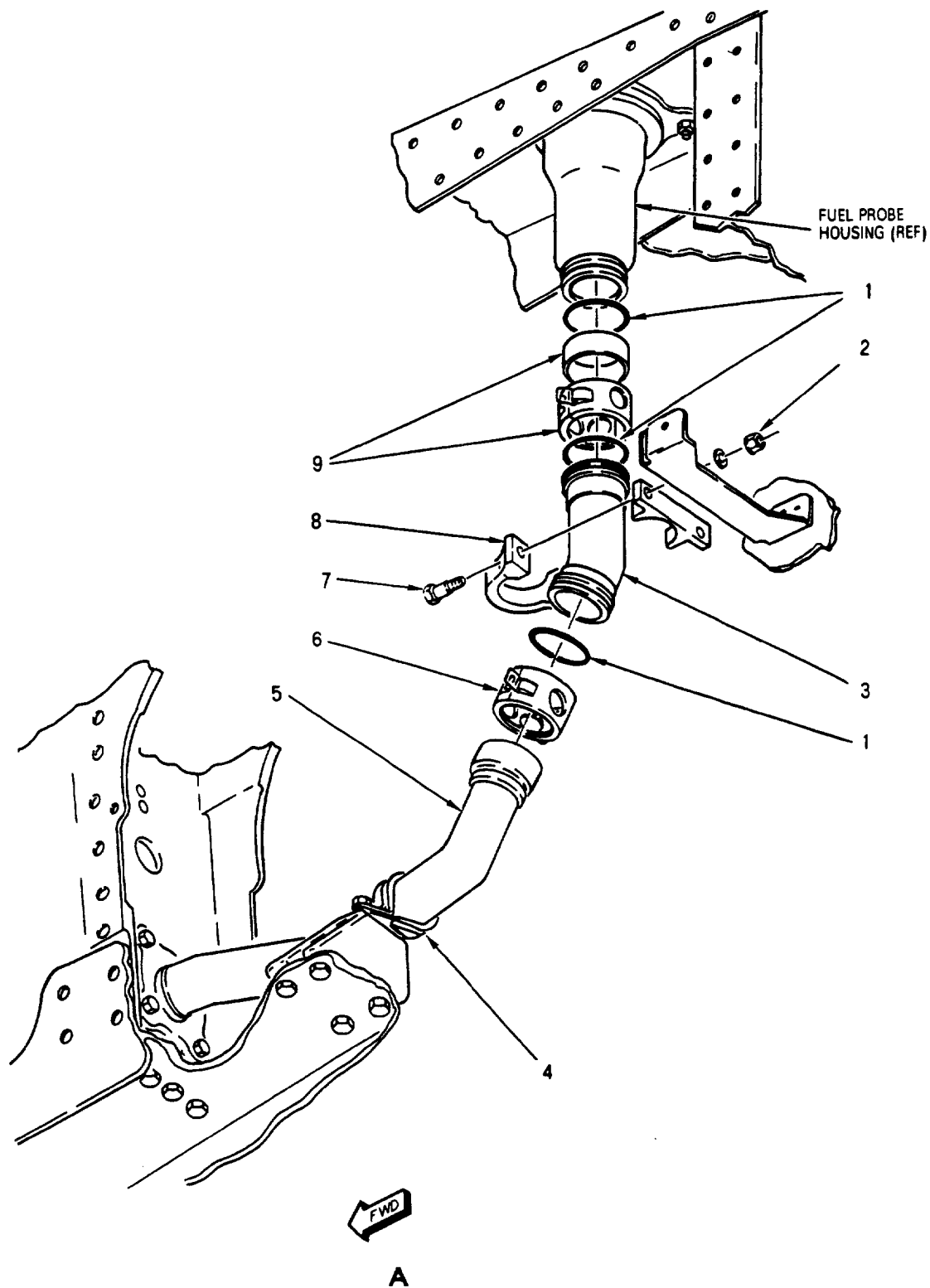


Figure 2. Wing Pylon Flame Arrestor (5VAW673) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING PYLON FLAME ARRESTOR									
		(5VAW673)									
1	MS29513-222	.						PACKING	3		PAOZZ
2	MS21042L3	.						NUT	2		PAOZZ
	AN960JD10L	.						WASHER (USE WITH INDEX 2)	2		PAOZZ
3	2408404-102	.						FLAME ARRESTOR (98769) (WING	1	*	PAOZZ
		.						PYLON FLAME ARRESTOR)			
		.						(MCDONNELL SPEC 74-580140-105)			
		.						(5VAW673)			
	AF86-3999	.						SEE ABOVE (99321)	1	*	PAOZZ
4	MS21919WDG24	.						CLAMP	1		PAOZZ
	VS3218-3-4	.						BOLT, SHEAR (AP) (99215) (MCDONNELL	1	*	PAOZZ
		.						SPEC ST3M807-3-4)			
	SC2667-3-4	.						SEE ABOVE (06950)	1	*	PAOZZ
	PBF 1268-3-4	.						SEE ABOVE (27624)	1	*	PAOZZ
	AN960D10	.						WASHER (AP)	1		PAOZZ
5	74A731106-1001	.						TUBE - FUEL (76301)	1		XBOZZ
	NAS674V9	.						BOLT (AP)	4		PAOZZ
	AN960JD416	.						WASHER (AP)	4		PAOZZ
	MS29513-225	.						PACKING (USE WITH INDEX 4)	1		PAOZZ
6	W904K24DE	.						COUPLING, CLAMP, GROOVED	1	A*	PAOZZ
		.						(HALF) (79326) (MCDONNELL SPEC			
		.						7M765-24D-1)			
	14C12-24A	.						SEE ABOVE (24984)	1	A*	PAOZZ
	W904F24DE	.						SEE ABOVE (79326) (MCDONNELL SPEC	1	B	PAOZZ
		.						7M550-24D-1)			
7	VS3218-3-9	.						BOLT, SHEAR (92215) (MCDONNELL	2	*	PAOZZ
		.						SPEC ST3M807-3-9)			
	SC2667-3-9	.						SEE ABOVE (06950)	2	*	PAOZZ
8	NAS1787A24	.						CLAMP	1		PAOZZ
9	W901K24DE	.						COUPLING, CLAMP, GROOVED (79326)	1	A*	PAOZZ
		.						(MCDONNELL SPEC 7M765-24D)			
		.						(INCLUDES SLEEVE)			
	14J12-24A	.						SEE ABOVE (24984)	1	A*	PAOZZ
	W901F24DE	.						SEE ABOVE (79326) (MCDONNELL SPEC	1	B	PAOZZ
		.						7M550-24D) (INCLUDES SLEEVE)			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	USED ON PYLONS DELIVERED ON 161924 & UP; ALSO USED ON 161353 THRU 161761 AFTER F/A-18 AAC 801	F/A-18A/B

CODE	USABLE ON	MODEL
B	USED ON PYLONS DELIVERED ON 161353 THRU 161761 BEFORE F/A-18 AAC 801	F/A-18A/B

Figure 2. Wing Pylon Flame Arrestor (5VAW673) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

PYLON TO EXTERNAL FUEL TANK FUEL/AIR COUPLING VALVES

(5VAW623 WING)

(5VAZ629 CENTERLINE)

EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
Fuel Tanks Maintenance Precautions and General Preparation	WP013 00
Airborne Weapons/Store Loading Manual	A1-F18AE-LWS-000
Aircraft Corrosion Control	A1-F18AC-SRM-500
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Weapon Control System	A1-F18AC-740-300
Aircraft Wing Pylon SUU-63/A	WP034 00
Aircraft Fuselage Centerline Pylon SUU-62/A	WP036 00

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Wing Pylon to External Fuel Tank Fuel/Air Coupling Valve	6
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Wing Pylon to External Fuel Tank Fuel/Air Coupling Valve (5VAW623) Figure 1	4

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 IAAC 773	20 May 83	Aircraft Fuselage Centerline Pylon SUU-62/A, Modification of Part 1 and Part 2	15 Jul 85	-

1. WING PYLON.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29513-222
Packing (2)	M25988/1-117
Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. REMOVAL.

- a. Defuel applicable external tank (A1-F18AC-PCM-000).
- b. Remove external tank (A1-F18AE-LWS-000).
- c. Remove pylon (A1-F18AC-740-300, WP034 00) from aircraft.
- d. Remove valve (6, figure 1) per substeps below:
 - (1) Remove coupling (5) (WP013 00).
 - (2) Remove bolts (7) and attaching parts, bolt (8), washers (9), valve (6), and packings (3 and 4).
- e. Remove valve (13, figure 1) per substeps below:
 - (1) Remove coupling (5, figure 1) (WP013 00).
 - (2) Remove clamp strap (12) and attaching parts.
 - (3) Remove bolt (8), washers (9), and bolt (14) and attaching parts, valve (13), and packings (3 and 4).

3. INSTALLATION.



Petrolatum, Technical

2

- a. Lubricate packings (3 and 4, figure 1) with petrolatum.
- b. Install packings (3 and 4).
- c. Inspect form-in-place seal on pylon at mating surface of valve (6 or 13) flange for damage. If damaged, replace per A1-F18AC-SRM-500.

- d. Install valve (6) per substeps below:
 - (1) Install valve (6), bolts (7) and attaching parts.
 - (2) Inspect and install coupling (5) (WP013 00).

- e. Install valve (13) per substeps below:
 - (1) Position valve (13) and install clamp strap (12) and attaching parts.
 - (2) Inspect and install coupling (5) (WP013 00).
 - (3) Install bolt (14) and attaching part.

- f. Prepare mating surfaces of lead (10) and bolt (8) for electrical bond (A1-F18AC-LMM-000).
- g. Install lead (10), bolt (8), and washers (9).
- h. Install pylon (A1-F18AC-740-300, WP034 00).
- i. Install external tank (A1-F18AE-LWS-000).
- j. Refuel external tank (A1-F18AC-PCM-000) and inspect valve (6 or 13) for leaks.
- k. Do external fuel tanks transfer test (A1-F18AC-LMM-000).

4. CENTERLINE PYLON.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Brush, Paint-type, 1/4 inch	-
Cheesecloth	301 (CAGE 97327)
Isopropyl Alcohol	TT-I-735, Grade 1 (CAGE 81348)
Packing	MS29513-222
Packing	M83248/1-117
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Scraper, Wooden or Phenolic	-
Sealing Compound	MIL-S-8802, Type 2 Class A-1/2 (CAGE 81348)

5. REMOVAL.

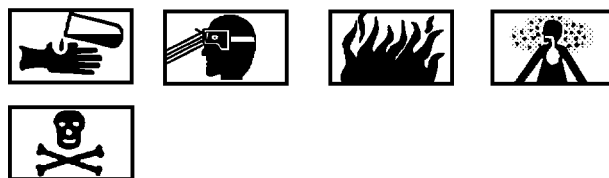
- a. Defuel applicable external tank (A1-F18AC-PCM-000).
- b. Remove external tank (A1-F18AE-LWS-000) from centerline pylon.
- c. Remove centerline pylon (A1-F18AC-740-300, WP036 00).
- d. Remove bolts (3, figure 2), spacers (2), valve (6) and attaching parts.
- e. Remove coupling (5) (WP013 00), and remove valve (6).
- f. Remove packings (4 and 7).

6. INSTALLATION.

Petrolatum, Technical

2

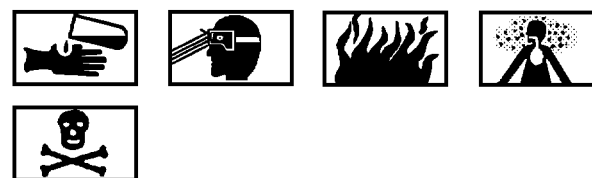
- a. Lubricate new packings (4 and 7, figure 2) with petrolatum.
- b. Install packings (4).
- c. Position tube (1) on valve (6) and inspect and install coupling (5) (WP013 00).
- d. Using a plastic or wooden scraper, remove sealing compound from pylon on bosses where bolts (3) attach valve (6), four places.
- e. Install packing (7).
- f. Prepare mating surfaces of valve (6) and pylon for electrical bond where bolts and pylon mate (A1-F18AC-LMM-000).
- g. Install valve (6), spacers (2), bolts (3) and attaching parts.



Isopropyl Alcohol

3

- h. Using cheesecloth moistened with isopropyl alcohol, clean periphery of mating surfaces of valve (6) and pylon. Wipe area with a clean, dry cheesecloth before isopropyl alcohol evaporates. Repeat procedures until no visible contamination remains.



Sealing Compound

6

- i. Apply a brush coat of sealing compound to periphery of mating surfaces of valve (6) and pylon. Allow sealing compound to cure until rubberlike.
- j. Install centerline pylon (A1-F18AC-740-300, WP036 00).
- k. Install external tank (A1-F18AE-LWS-000) on centerline pylon.
- l. Refuel external tank and inspect valve (5) for leaks (A1-F18AC-PCM-000).
- m. Do external fuel tanks transfer test (A1-F18AC-LMM-000).

7. ILLUSTRATED PARTS BREAKDOWN.

8. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

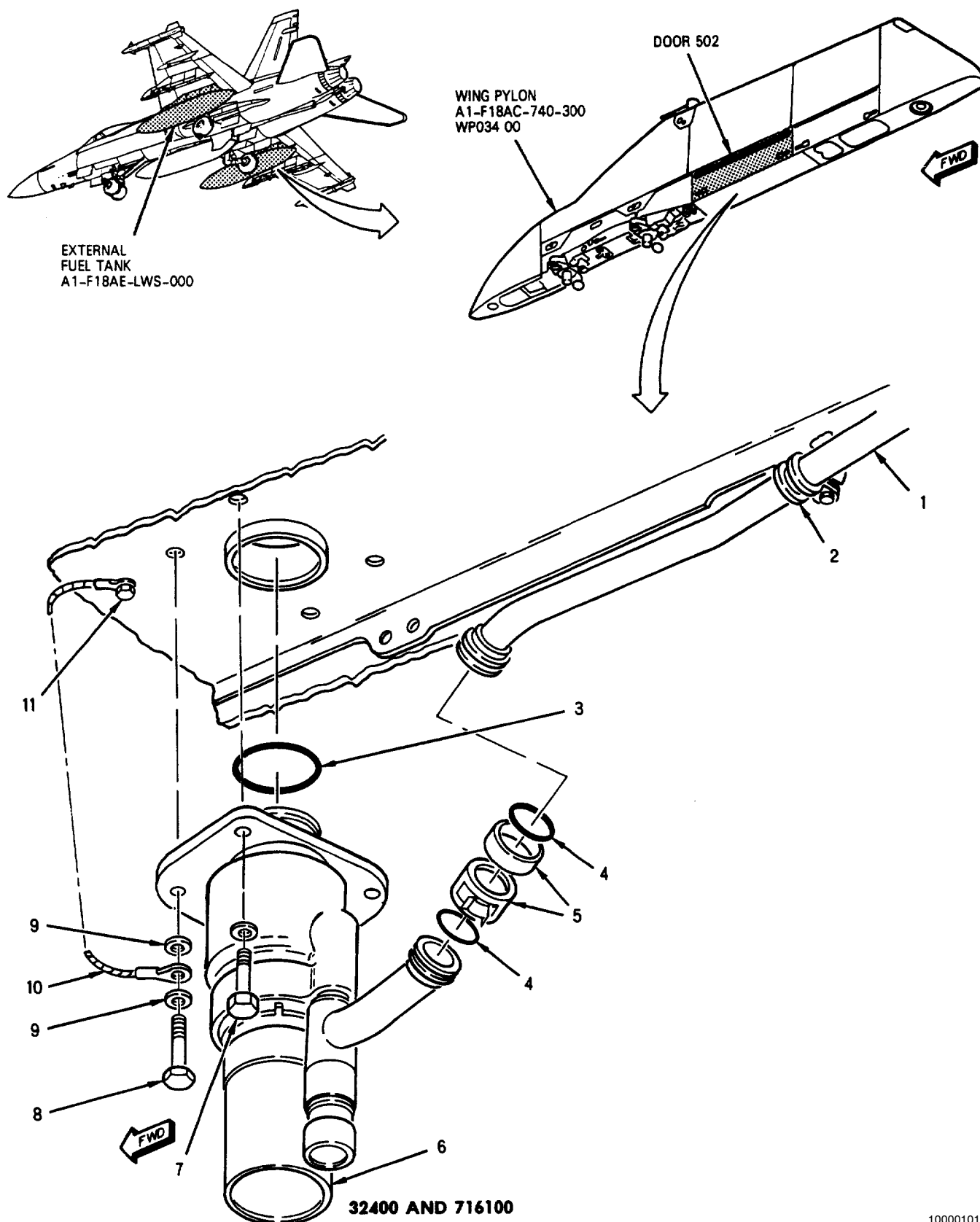


Figure 1. Wing Pylon To External Fuel Tank Fuel/Air Coupling Valve (5VAW623)
(Sheet 1)

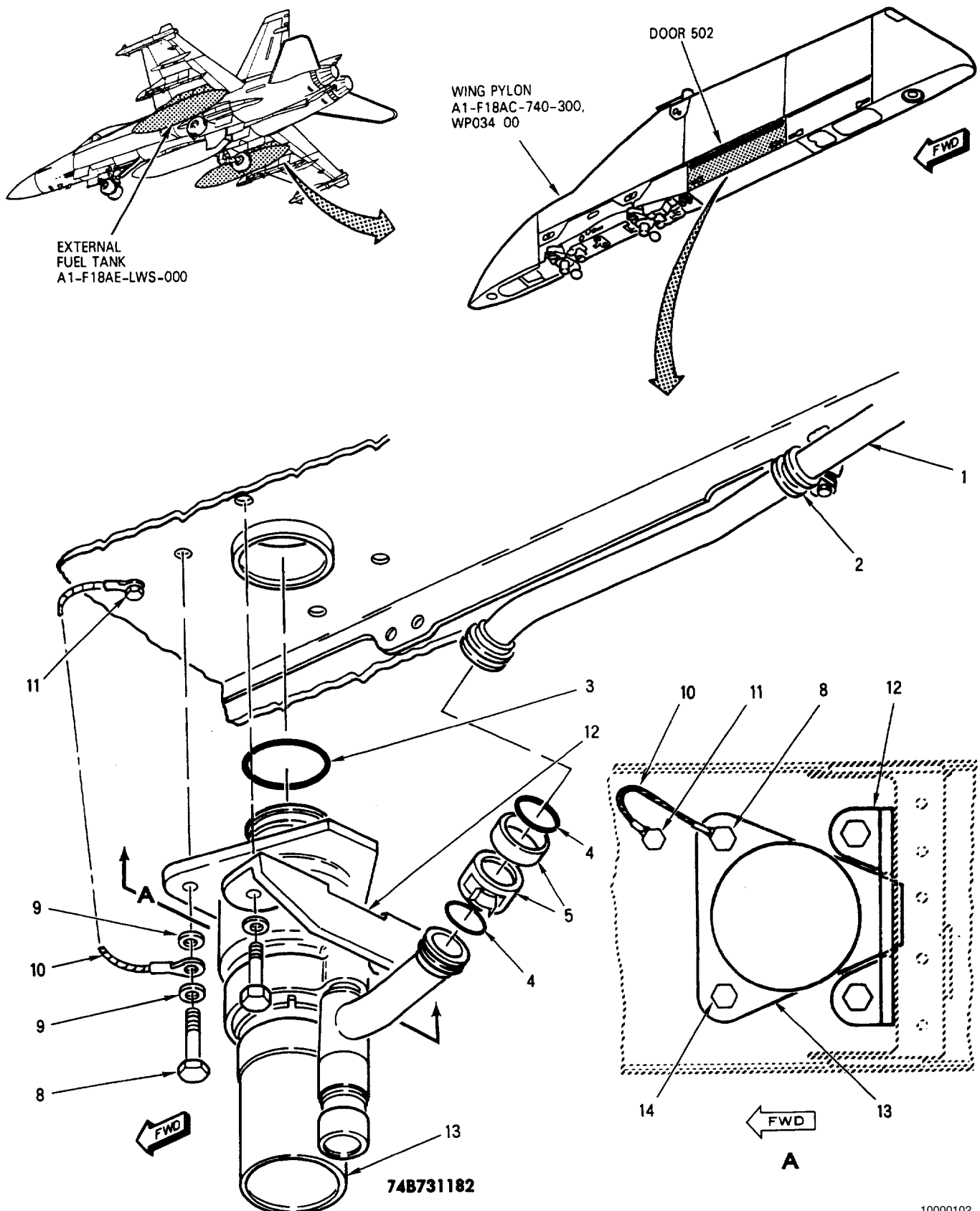


Figure 1. Wing Pylon To External Fuel Tank Fuel/Air Coupling Valve (5VAW623)
(Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6 7			
		WING PYLON TO EXTERNAL FUEL TANK								
		FUEL/AIR COUPLING VALVE (5VAW623)								
1	74A731194-1001	.	TUBE - AIR, LOWER (76301)	.	.	.	.	1		PAOZZ
2	MS21919WDG12	.	CLAMP . . . . .	.	.	.	.	1		PAOZZ
	VS3218-3-3	.	BOLT, CLOSE TOLERANCE (AP) (92215)	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M807-3-3)	.	.	.	.
	SC2667-3-3	.	SEE ABOVE (06950)	.	.	.	.	1	*	PAOZZ
	PBF1268-3-3	.	SEE ABOVE (27624)	.	.	.	.	1	*	PAOZZ
	AN960JD10	.	WASHER (AP)	.	.	.	.	1		PAOZZ
3	MS29513-222	.	PACKING . . . . .	.	.	.	.	1		PAOZZ
4	M25988/1-117	.	PACKING . . . . .	.	.	.	.	2		PAOZZ
5	W901K12DE	.	COUPLING, CLAMP, GROOVED (79326)	.	.	.	.	1		PAOZZ
		.	(MCDONNELL SPEC 7M765-12D)	.	.	.	.
		.	(INCLUDES SLEEVE)	.	.	.	.
	14J12-12A	.	SEE ABOVE (24984)	.	.	.	.	1		PAOZZ
	W901F12DE	.	SEE ABOVE (79326) (MCDONNELL SPEC	.	.	.	.	1	*	PAOZZ
		.	7M550-12D) (INCLUDES SLEEVE)	.	.	.	.
6	32400-131	.	VALVE, POPPET, FUEL/AIR COUPLING, EXT	.	.	.	.	1		PAOZZ
		.	TANK TO PYLON (WING PYLON TO	.	.	.	.
		.	EXTERNAL TANK FUEL/AIR COUPLING	.	.	.	.
		.	VALVE) (04192) (MCDONNELL SPEC	.	.	.	.
		.	74-550051-111) (5VAW623) (REPLACES	.	.	.	.
		.	32400-121, 74B731182-1003 AND	.	.	.	.
		.	74B731182-1001)	.	.	.	.
	716100-111	.	SEE ABOVE (96124) (REPLACES	.	.	.	.	1		PAOZZ
		.	32400-121, 74B731182-1001 AND	.	.	.	.
		.	74B731182-1003)	.	.	.	.
	32400-121	.	SEE ABOVE (MCDONNELL SPEC	.	.	.	.	1	*	PAOZZ
		.	74-550051-101) (REPLACED BY	.	.	.	.
		.	32400-131 OR 716100-111)	.	.	.	.
7	VS3218-4-13	.	BOLT, CLOSE TOLERANCE (92215)	.	.	.	.	3	*	PAOZZ
		.	(MCDONNELL SPEC ST3M807-4-13)	.	.	.	.
	SC2667-4-13	.	SEE ABOVE (06950)	.	.	.	.	3	*	PAOZZ
	PBF1268-4-13	.	SEE ABOVE (27624)	.	.	.	.	3	*	PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 7)	.	.	.	.	3		PAOZZ
8	VS3218-4-13	.	BOLT, CLOSE TOLERANCE (92215)	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M807-4-13)	.	.	.	.
	SC2667-4-13	.	SEE ABOVE (06950)	.	.	.	.	1	*	PAOZZ
	PBF1268-4-13	.	SEE ABOVE (27624)	.	.	.	.		*	PAOZZ
9	AN960JD416L	.	WASHER (UNDER BOLT AND UNDER	.	.	.	.	2		PAOZZ
		.	ELECTRICAL LEAD)	.	.	.	.
10	MS25083-2BC2	.	LEAD, ELECTRICAL . . . . .	.	.	.	.	1		PAOZZ
11	VS3218-3-8	.	BOLT, CLOSE TOLERANCE (92215)	.	.	.	.	1	*	PAOZZ
		.	(MCDONNELL SPEC ST3M807-3-8)	.	.	.	.
	SC2667-3-8	.	SEE ABOVE (06950)	.	.	.	.	1	*	PAOZZ
	PBF1268-3-8	.	SEE ABOVE (27624)	.	.	.	.	1	*	PAOZZ
	AN960JD10	.	WASHER (USE WITH INDEX 11)	.	.	.	.	1		PAOZZ
12	74A731196-2001 c	.	CLAMP STRAP, RETAINING (76301)	.	.	.	.	1		PAOZZ
		.	(DRILL ON INSTALLATION)	.	.	.	.
	VS3218-4-13	.	BOLT, CLOSE TOLERANCE (AP) (92215)	.	.	.	.	2	*	PAOZZ
		.	(MCDONNELL SPEC ST3M807-4-13)	.	.	.	.
	SC2667-4-13	.	SEE ABOVE (06950)	.	.	.	.	2	*	PAOZZ
	PBF1268-4-13	.	SEE ABOVE (27624)	.	.	.	.	2	*	PAOZZ
	AN960JD416L	.	WASHER (AP) . . . . .	.	.	.	.	2		PAOZZ
13	74B731182-1003	.	VALVE, POPPET - FUEL/AIR COUPLING	.	.	.	.	1		PAOZZ
		.	EXT TANK PYLON TO WING (76301)	.	.	.	.
		.	(REPLACES 74B731182-1001) (ALTERED	.	.	.	.
		.	FROM 32400-111) (REPLACED BY	.	.	.	.
		.	32400-131 OR 716100-111)	.	.	.	.

Figure 1. Wing Pylon To External Fuel Tank Fuel/Air Coupling Valve (5VAW623)
(Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	74B731182-1001	.						SEE ABOVE (REPLACED BY 74B731182-1003) (ALTERED FROM 32400-100)	1	*	PAOZZ
14	VS3218-4-13	.						BOLT, CLOSE TOLERANCE (92215) (MCDONNELL SPEC ST3M807-4-13)	1	*	PAOZZ
	SC2667-4-13	.						SEE ABOVE (06950)	1	*	PAOZZ
	PBF1268-4-13	.						SEE ABOVE (27624)	1	*	PAOZZ
	AN960JD416	.						WASHER (USE WITH INDEX 12)	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

¢ MUST BE USED WITH
74B731182-1001 OR
74B731182-1003 VALVE.

**Figure 1. Wing Pylon To External Fuel Tank Fuel/Air Coupling Valve (5VAW623)
(Sheet 4)**

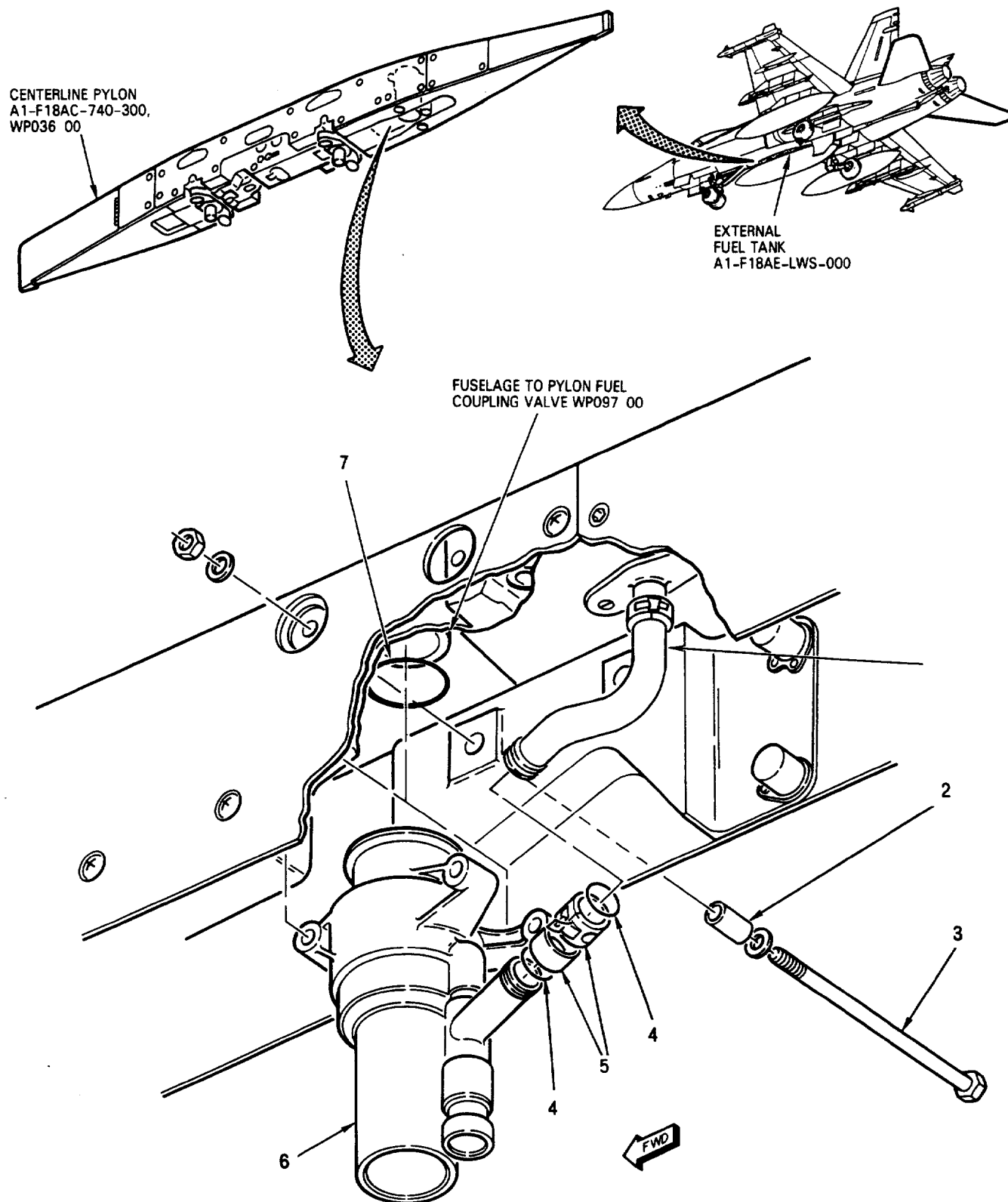


Figure 2. Centerline Pylon To External Fuel Tank/Air Coupling Valve (5VAZ629)
(Sheet 1)

10000201

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		CENTERLINE PYLON TO EXTERNAL FUEL									
		TANK FUEL/AIR COUPLING VALVE									
		(5VAZ629)									
1	74A555601-1001	.	TUBE ASSEMBLY, METAL - FUEL PRESS						1		PAOZZ
			SYS (76301)								
2	NAS43DD4-81	.	SPACER						2		PAOZZ
3	NAS654V94	.	BOLT						2		PAOZZ
	AN960JD416L	.	WASHER (UNDER BOLT AND UNDER						4		PAOZZ
			NUT) (USE WITH INDEX 3)								
	NAS1291C4M	.	NUT (USE WITH INDEX 3)						2		PAOZZ
4	M83248/1-117	.	PACKING						2		PAOZZ
5	W901K12DE	.	COUPLING, CLAMP, GROOVED (79326)						1		PAOZZ
			(MCDONNELL SPEC 7M765-12D)								
			(INCLUDES SLEEVE)								
	14J12-12A	.	SEE ABOVE (24984)						1		PAOZZ
	W901F12DE	.	SEE ABOVE (79326) (MCDONNELL						1	*	PAOZZ
			SPEC 7M550-12D) (INCLUDES								
			SLEEVE)								
6	32400-137	.	VALVE, POPPET - FUEL/AIR COUPLING,						1		PAOZZ
			EXT TANK TO PYLON (C/L)								
			(CENTERLINE PYLON TO EXTERNAL								
			FUEL TANK FUEL/AIR COUPLING								
			VALVE) (04192) (MCDONNELL SPEC								
			74-550051-113) (5VAZ629) (REPLACES								
			32400-123, 32400-103 & 74B550061-1001)								
	32400-135	.	SEE ABOVE						1	*	-
	32400-133	.	SEE ABOVE						1	*	-
	716100-113	.	SEE ABOVE (96124)						1	*	PAOZZ
	74G970002-1001 **	.	SEE ABOVE						1	*	XBOZZ
7	MS29513-222	.	PACKING						1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

** USED AFTER F/A-18 IAAC 773

Figure 2. Centerline Pylon To External Fuel Tank/Air Coupling Valve (5VAZ629)
(Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
EXTERNAL FUEL SYSTEM AIR PRESSURE SWITCHES
(5S-P151 OR 5S-P152)
EXTERNAL FUEL SYSTEM

Reference Material

Fuel System	A1-F18AC-460-200
External Fuel System	WP010 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Illustrated Parts Breakdown	2
Illustration	3
Parts List	4
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Materials Required	1
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

- a. Make sure electrical power is off (A1-F18AC-LMM-000).
- b. Disconnect connector (4 or 5, figure 1).
- c. Remove lockwire and switch (3 or 6).

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-04
Packing	MS29512-06
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Wire, Saftey, Nonelectrical	MS20995NC32 (CAGE 96906)

2. INSTALLATION.

- a. Prepare mating surfaces of switch (3 or 6, figure 1) and tube (1) for electrical bonding (A1-F18AC-LMM-000).



Petrolatum, Technical

b. Lubricate packing (2 or 7) with petrolatum and install on switch (3 or 6, figure 1).

c. Install switch (3 or 6).

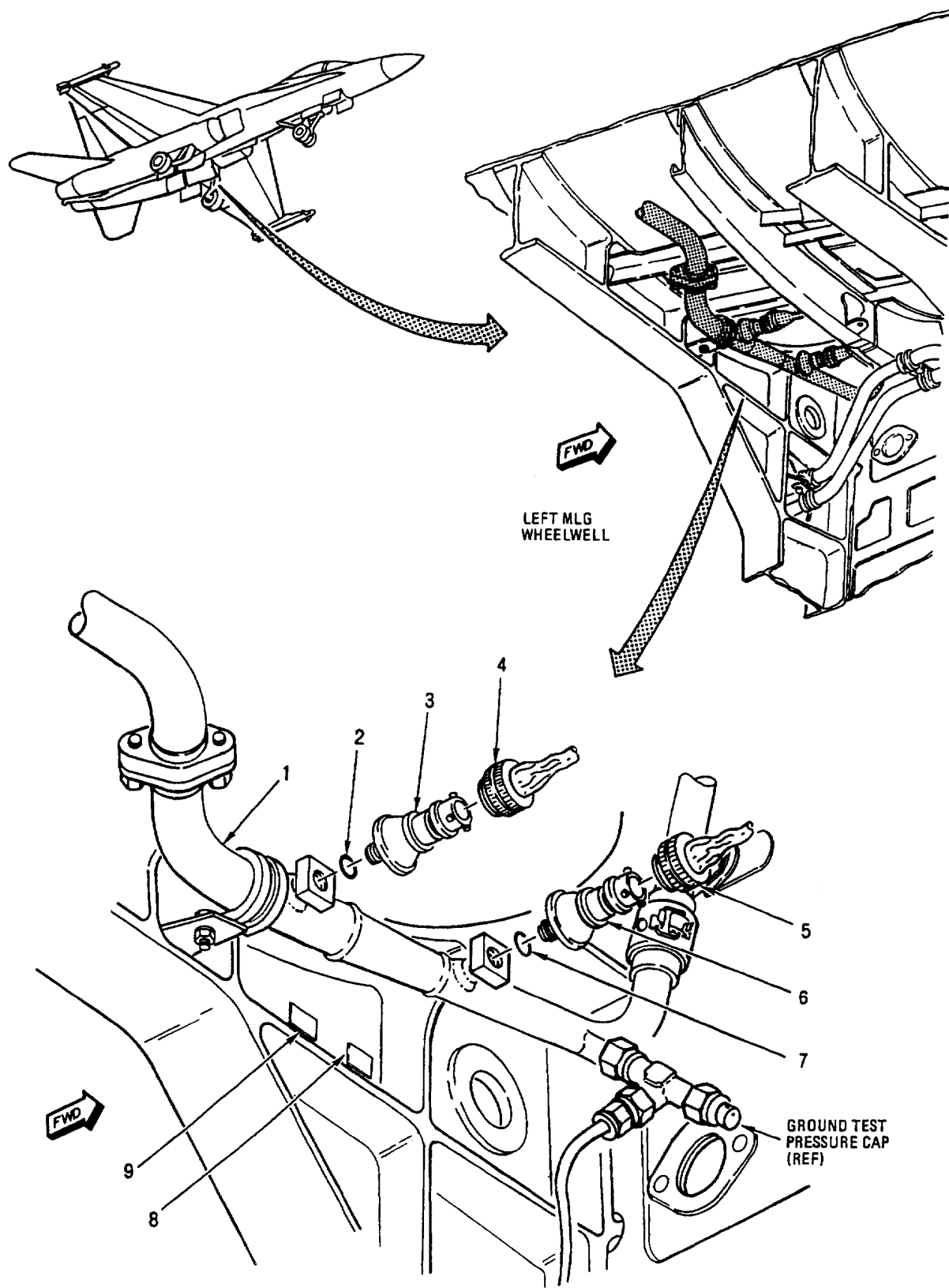
d. Safety switches with lockwire. (QA)

e. Connect connector (4 or 5).

f. Do external fuel tanks overpressurization test (A1-F18AC-460-200, WP010 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



10100101

Figure 1. External Fuel System Air Pressure Switches (5S-P151 or 5S-P152) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL SYSTEM AIR PRESSURE									
		SWITCHES (5S-P151 OR 5S-P152)									
1	74A586721-1007	.	TUBE ASSEMBLY, METAL - FUEL						1	B	XBOZZ
			PRESSURE SYS, WHEELWELL								
			(76301) (LEFT SIDE)								
	74A586721-1013	.	TUBE ASSEMBLY, METAL - FUEL						1	C	XBOZZ
			PRESSURE SYS, WHEELWELL								
			(76301) (LEFT SIDE)								
2	MS29512-06	.	PACKING						1		PAOZZ
3	12446-117	.	SWITCH, PRESSURE - FUEL (34 PSI)						1	*	PAOZZ
			(EXTERNAL FUEL SYSTEM AIR								
			PRESSURE SWITCH) (98505)								
			(MCDONNELL SPEC 74-580167-117)								
			(5S-P152) (REPLACES 12446-109)								
	2299-17	.	SEE ABOVE (55723)						1	*	PAOZZ
	12446-109	.	SWITCH, PRESSURE - FUEL (34 PSI)						1	A	PAOZZ
			(EXTERNAL FUEL SYSTEM AIR								
			PRESSURE SWITCH) (98505)								
			(MCDONNELL SPEC 74-580167-107)								
			(5S-P152) (USE UNTIL EXHAUSTED)								
4	MS27467T11B98S	.	CONNECTOR, PLUG (5P-P152)						1		PAOZZ
5	MS27467T11B98S	.	CONNECTOR, PLUG (5P-P151)						1		PAOZZ
6	12446-115	.	SWITCH, PRESSURE - FUEL (5 PSI)						1	*	PAOZZ
			(EXTERNAL FUEL SYSTEM AIR								
			PRESSURE SWITCH) (98505)								
			(MCDONNELL SPEC 74-580167-115)								
			PRESSURE SWITCH) (98505)								
			(MCDONNELL SPEC 74-580167-115)								
			(5S-P151) (REPLACES 12446-107)								
	2299-15	.	SEE ABOVE (55723)						1	*	PAOZZ
	12446-107	.	SWITCH, PRESSURE - FUEL (5 PSI)						1	A	PAOZZ
			(EXTERNAL FUEL SYSTEM AIR								
			PRESSURE SWITCH) (98505)								
			(MCDONNELL SPEC 74-580167-105)								
			(5S-P151) (USE UNTIL EXHAUSTED)								
7	MS29512-04	.	PACKING						1		PAOZZ
8	74A885621-2534	.	MARKER, IDENTIFICATION (76301)						1	D	MDOZZ
			(FOR REF DES 5S-P151)								
	74A885621-2830	.	MARKER, IDENTIFICATION (76301)						1	E	MDOZZ
			(FOR REF DES 5S-P151) (SUPERSEDES								
			74A885621-2614)								
9	74A885621-2535	.	MARKER, IDENTIFICATION (76301)						1	F	MDOZZ
			(FOR REF DES 5S-P152)								
	74A885621-2831	.	MARKER, IDENTIFICATION (76301)						1	G	MDOZZ
			(FOR REF DES 5S-P152) (SUPERSEDES								
			74AB85621-2615)								
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)											
		CODE	SABLE ON				MODEL				
		A	161353 THRU 161521				F/A-18A/B				
		B	161353 THRU 161704				F/A-18A/B				
		C	161705 & UP				F/A-18A/B				
		D	PN 12446-107								
		E	74-580167-115								
		F	PN 12446-109								
		G	74-580167-117								

Figure 1. External Fuel System Air Pressure Switches (5S-P151 or 5S-P152) (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

EXTERNAL FUEL SYSTEM PRESSURIZATION BLEED ORIFICE
(5VAP654)

EXTERNAL FUEL SYSTEM

Reference Material

Line Maintenance Procedures A1-F18AC-LMM-000

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Record of Applicable Technical Directives

None

Support Equipment Required

c. Remove nut (3), reducer and orifice (2).

Nomenclature

Part Number or
Type DesignationExternal Air Source -
(15 to 18 psi)

2. INSTALLATION.

a. Install orifice and reducer (2, figure 1) and nut (3).

b. Connect tube (4).

c. Remove cap from tee (1) and connect external air source (15 to 18 psi) to tee (1). Inspect for leaks and flow of air through tube (4).

Materials Required

None

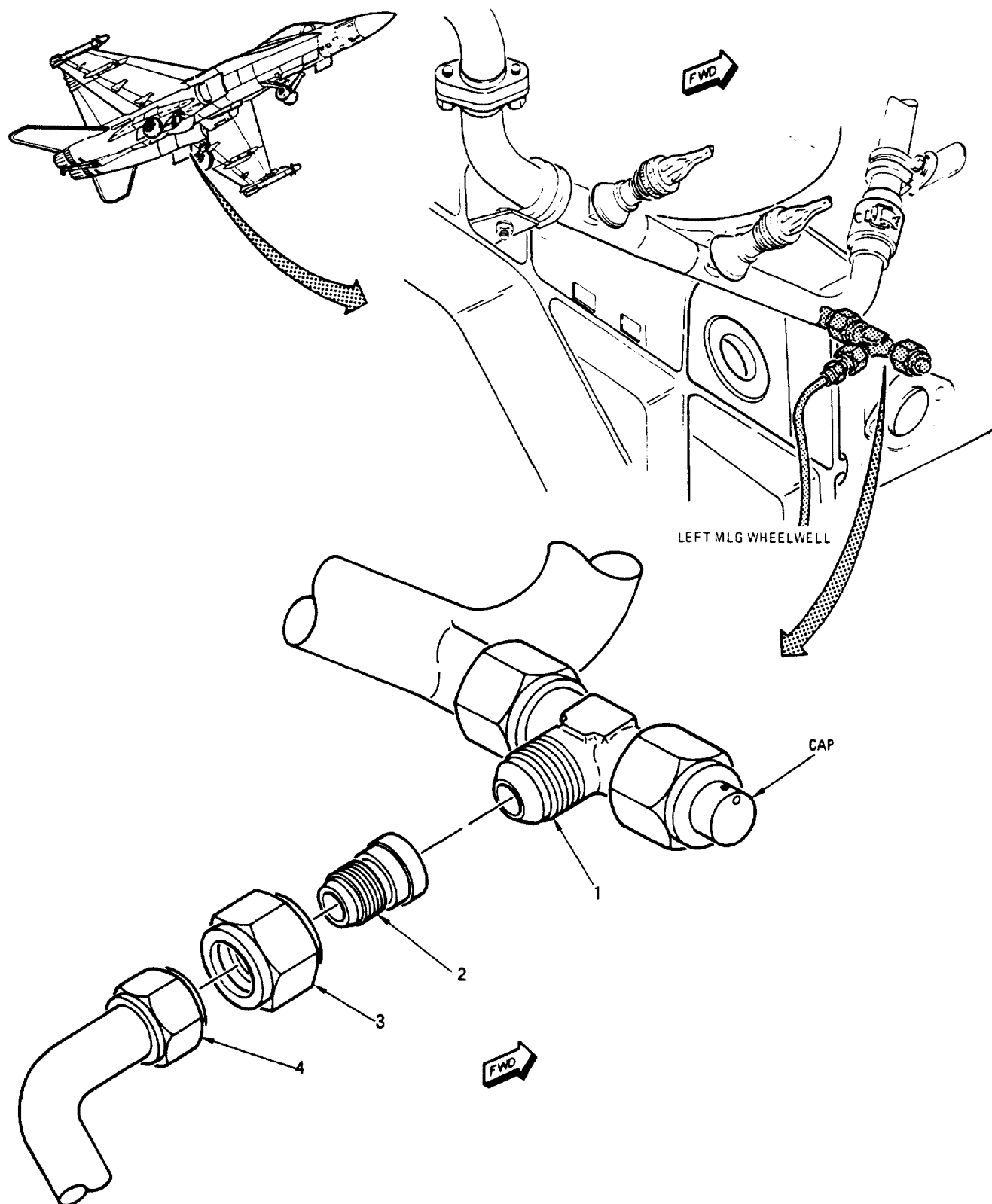
1. REMOVAL.

a. Make sure electrical power is off (A1-F18AC-LMM-000).

b. Disconnect tube (4, figure 1).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



10101011

Figure 1. External Fuel System Pressurization Bleed Orifice (5VAP654) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		EXTERNAL FUEL SYSTEM PRESSURIZATION									
		BLEED ORIFICE (5VAP654)									
1	7M151V8	.						TEE (76301)	1		PAOZZ
2	74A586707-1001	.						REDUCER ASSEMBLY - BLEED	1		XBOZZ
								PRESSURIZATION (EXTERNAL FUEL PRESSURIZATION BLEED ORIFICE) (76301) (5VAP654)			
3	AN818-8D	.						NUT	1		PAOZZ
4	74A586705-1001	.						TUBE ASSEMBLY - METAL, BLEED	1		MGOZZ
								PRESSURIZATION (76301)			

Figure 1. External Fuel System Pressurization Bleed Orifice (5VAP654) (Sheet 2)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****WING FUEL COUPLING VALVE
(5VAU575 OR 5VAV576)****EXTERNAL FUEL SYSTEM**

Reference Material

Airborne Weapons/Stores Loading Manual	A1-F18AE-LWS-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Weapons Control System	A1-F18AC-740-300
Aircraft Wing SUU-63/A Pylon	WP034 00

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Repair	2
Support Equipment Required	
Removal and Installation	2
Repair	2
Wing Fuel Coupling Valve (5VAU575 or 5VAV576), Figure 1	4

Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	M25988/1-138
Petrolatum, Technical	VV-P-236 (CAGE 81348)

NOTE

This procedure is typical for left or right wing fuel coupling valves.

2. REMOVAL.

a. Defuel aircraft (A1-F18AC-PCM-000).

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

c. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

d. Remove external tank (A1-F18AE-LWS-000).

e. Remove pylon (A1-F18AC-740-300, WP034 00).



Jet Fuel

1

WARNING

To prevent personal injury, do not stand directly under valve.

f. Position an approved safety container under valve (2, figure 1) to catch residual fuel, then manually unseat valve (2).

g. Remove screws (3).

h. Loosen grip bolts and remove valve (2).

i. Remove packing (1).

j. Cover open port to prevent contamination.

3. INSTALLATION.



Petrolatum, Technical

2

a. Lubricate new packing (1, figure 1) with petrolatum, then install packing.

b. Remove shims as required to bring valve (2) flush with bottom skin surface.

c. Install valve (2) and screws (3) in housing assembly.

d. Tighten grip bolts into valve (2).

e. Install pylon (A1-F18AC-740-300, WP034 00).

f. Install external tank (A1-F18AE-LWS-000).

g. Remove no power tag from external power receptacle.

h. Refuel aircraft and inspect for leaks (A1-F18AC-PCM-000).

4. REPAIR.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	M25988/1-134
Petrolatum, Technical	VV-P-236 (CAGE 81348)

NOTE

This procedure is typical for left or right wing fuel coupling valves. Repair is limited to replacement of packing.

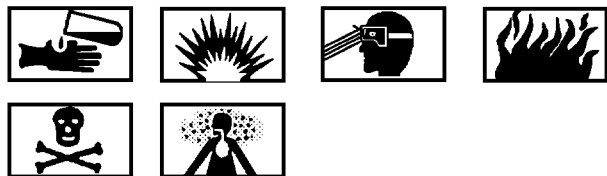
a. Defuel aircraft (A1-F18AC-PCM-000).

b. Make sure electrical power is not applied (A1-F18AC-LMM-000).

c. Tag aircraft external power receptacle with an applicable warning to indicate external power is not to be applied to the aircraft.

d. Remove external tank (A1-F18AE-LWS-000).

e. Remove pylon (A1-F18AC-740-300, WP034 00).



Jet Fuel

1

WARNING

To prevent personal injury, do not stand directly under valve.

f. Position an approved safety container under valve (2, figure 1) to catch residual fuel, then manually unseat valve (2).

g. Remove packing (4).



Petrolatum, Technical

2

h. Lubricate new packing (4) with petrolatum and install packing.

i. Install pylon (A1-F18AC-740-300, WP034 00).

j. Install external tank (A1-F18AE-LWS-000).

k. Remove no power tag from external power receptacle.

l. Refuel aircraft and inspect for leaks (A1-F18AC-PCM-000).

5. ILLUSTRATED PARTS BREAKDOWN.

6. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

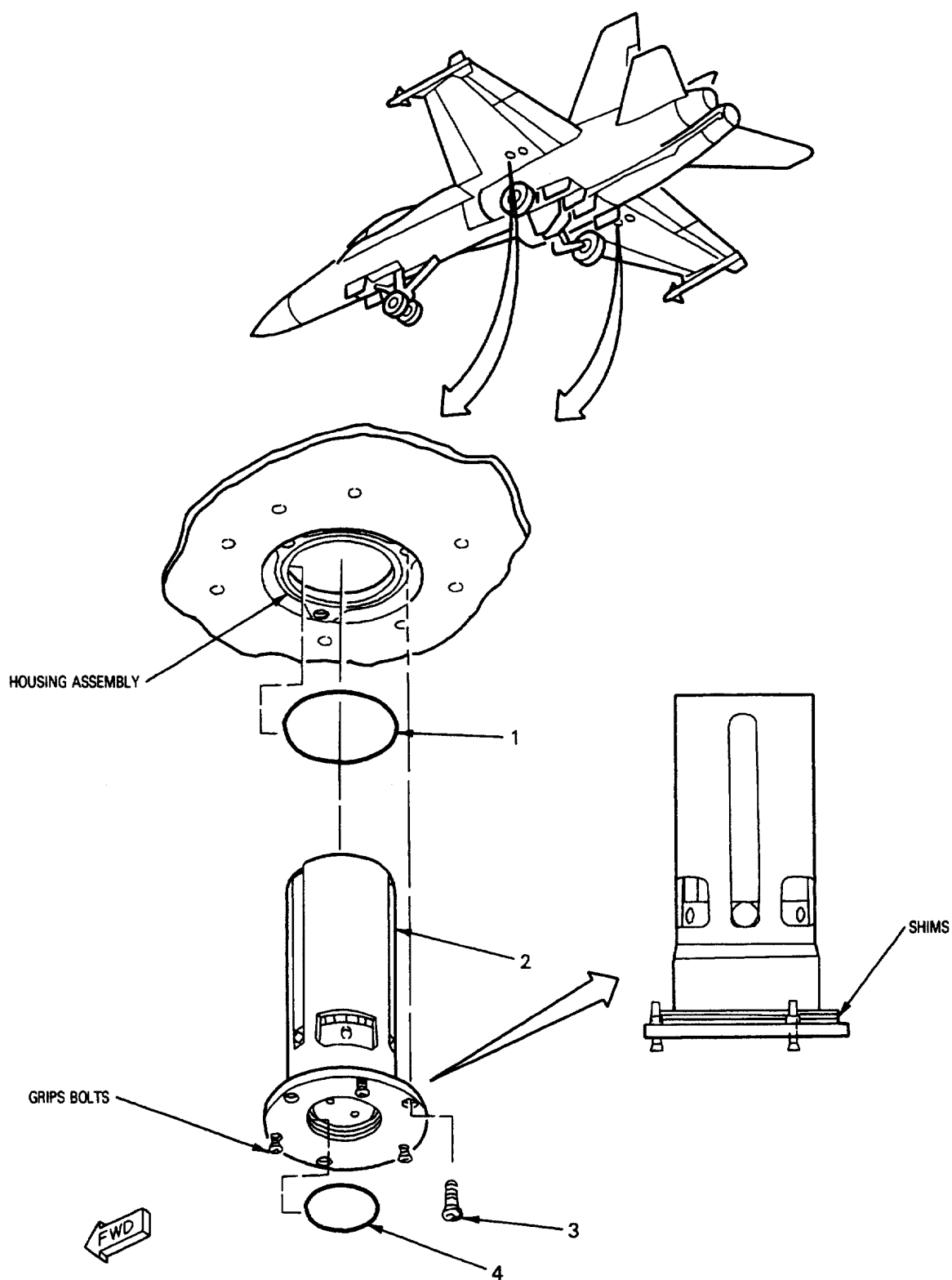


Figure 1. Wing Fuel Coupling Valve (5VAU575 or 5VAV576) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING FUEL COUPLING VALVE (5VAU575 OR 5VAV576)									
1	M25988/1-138	.						PACKING	1		PAOZZ
2	60862-2	.						VALVE, ASSEMBLY, RELIEF, PRESSURE AND TEMPERATURE COUPLING (WING FUEL COUPLING VALVE) (86090) (MCDONNELL SPEC 74-580057-205) (5VAU575 OR 5VAV576)	1		PAOOO
	60862-1	.						SEE ABOVE	1	*	PAOZZ
3	MS24693C274	.						SCREW	3		PAOZZ
4	M25988/1-134	.						PACKING	1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Wing Fuel Coupling Valve (5VAU575 or 5VAV576) (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

WING AIR COUPLING VALVE
(5VAU577 OR 5VAV578)

EXTERNAL FUEL SYSTEM

Reference Material

Airborne Weapons/Stores Loading Manual	A1-F18AE-LWS-000
Line Maintenance Procedures	A1-F18AC-LMM-000
Plane Captain Manual	A1-F18AC-PCM-000
Weapons Control System	A1-F18AC-740-300
Aircraft Wing SUU-63/A Pylon	WP034 00

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Repair	2
Support Equipment Required	
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Repair	2
Wing Air Coupling Valve (5VAU577 or 5VAV578), Figure 1	4

Record of Applicable Technical Directives

None

1. REMOVAL AND INSTALLATION.

Materials Required

Support Equipment Required		Specification or Part Number	
Nomenclature	Part Number or Type Designation	Nomenclature	
		Leak Test Compound	MIL-L-25567 (CAGE 81349)
		Packing	M25988/1-131
		Petrolatum, Technical	VV-P-236 (CAGE 81348)
Nitrogen Servicing Unit	322AS100-1		

NOTE

This procedure is typical for left or right wing air coupling valves.

2. REMOVAL.

- a. Remove external tank (A1-F18AE-LWS-000).
- b. Remove pylon (A1-F18AC-740-300, WP034 00).
- c. Remove screws (3, figure 1).
- d. Loosen grip bolts and remove valve (2).
- e. Remove packing (1).
- f. Cover open port to prevent contamination.

3. INSTALLATION.



Petrolatum, Technical 2

- a. Lubricate new packing (1, figure 1) with petrolatum and install packing.
- b. Remove shims as required to bring valve (2) flush with bottom skin surface.
- c. Install valve (2) and screws (3) in housing assembly.
- d. Tighten grip bolts in valve (2).
- e. Apply electrical power (A1-F18AC-LMM-000).

f. On cockpit FUEL control panel, set EXT TANKS WING switch and EXT TANKS CTR switch to STOP.

g. In left main landing gear wheelwell remove cap on ground air pressurization connector and attach nitrogen/air service unit hose.



Nitrogen 23

h. Slowly apply 100 psi nitrogen/air pressure to system.



Leak Detection Compound 24

i. Using leak test compound, inspect valve (2) for air leaks.

j. Remove nitrogen/air source and install cap on ground air pressurization connector.

k. Remove electrical power (A1-F18AC-LMM-000).

l. If applicable, install pylon (A1-F18AC-740-300, WP034 00) and/or external tank (A1-F18AE-LWS-000).

4. REPAIR.

Support Equipment Required

Nomenclature	Part Number or Type Designation
Nitrogen Servicing Unit	322AS100-1

Materials Required

Nomenclature	Specification or Part Number
Leak Test Compound	MIL-L-25567 (CAGE 81349)
Packing	M25988/1-126
Petrolatum, Technical	VV-P-236 (CAGE 81348)

NOTE

This procedure is typical for left or right wing air coupling valves. Repair is limited to replacement of packing.

- a. Remove external tank (A1-F18AE-LWS-000).
- b. Remove pylon (A1-F18AC-740-300, WP034 00).
- c. Unseat valve (2, figure 1) and remove packing (4).



Petrolatum, Technical

2

d. Lubricate new packing (4) with petrolatum and install packing.

e. Apply electrical power (A1-F18AC-LMM-000).

f. On cockpit FUEL control panel, set EXT TANKS WING switch and EXT TANKS CTR switch to STOP.

g. In left main landing gear wheelwell, remove cap on ground air pressurization connector and attach nitrogen/air service unit hose.



Nitrogen

23

h. Slowly apply 100 psi nitrogen/air pressure to system.



Leak Detection Compound

24

i. Using leak test compound, inspect valve (2) for air leaks.

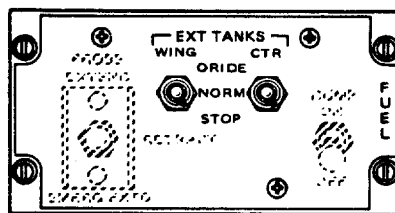
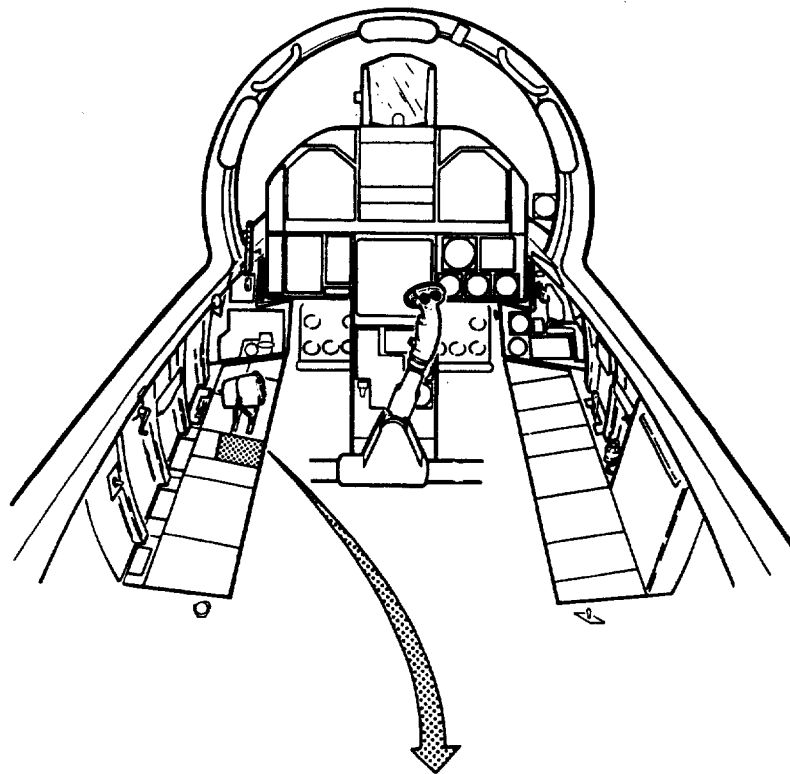
j. Remove nitrogen/air source and install cap on ground air pressurization connector.

k. Remove electrical power (A1-F18AC-LMM-000).

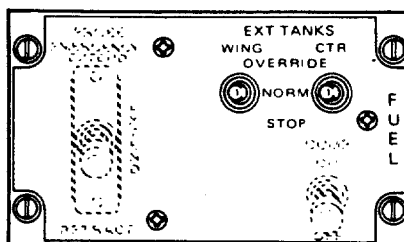
l. If applicable, install pylon (A1-F18AC-740-300, WP034 00) and/or external tank (A1-F18AE-LWS-000).

5. ILLUSTRATED PARTS BREAKDOWN.

6. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



161702 AND UP



161353 THRU 161528

Figure 1. Wing Air Coupling Valve (5VAU577 or 5VAV578) (Sheet 1)

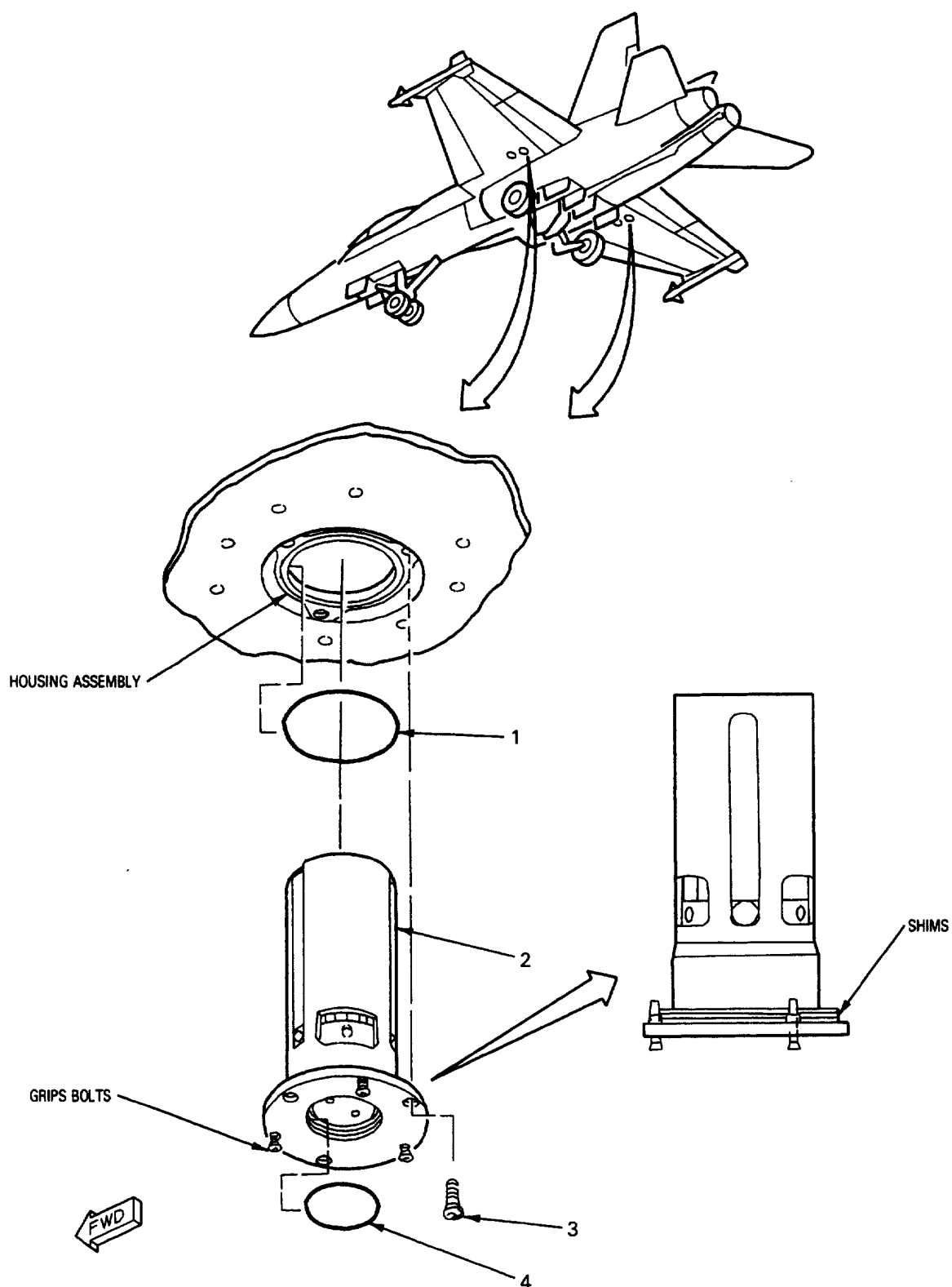


Figure 1. Wing Air Coupling Valve (5VAU577 or 5VAV578) (Sheet 2)

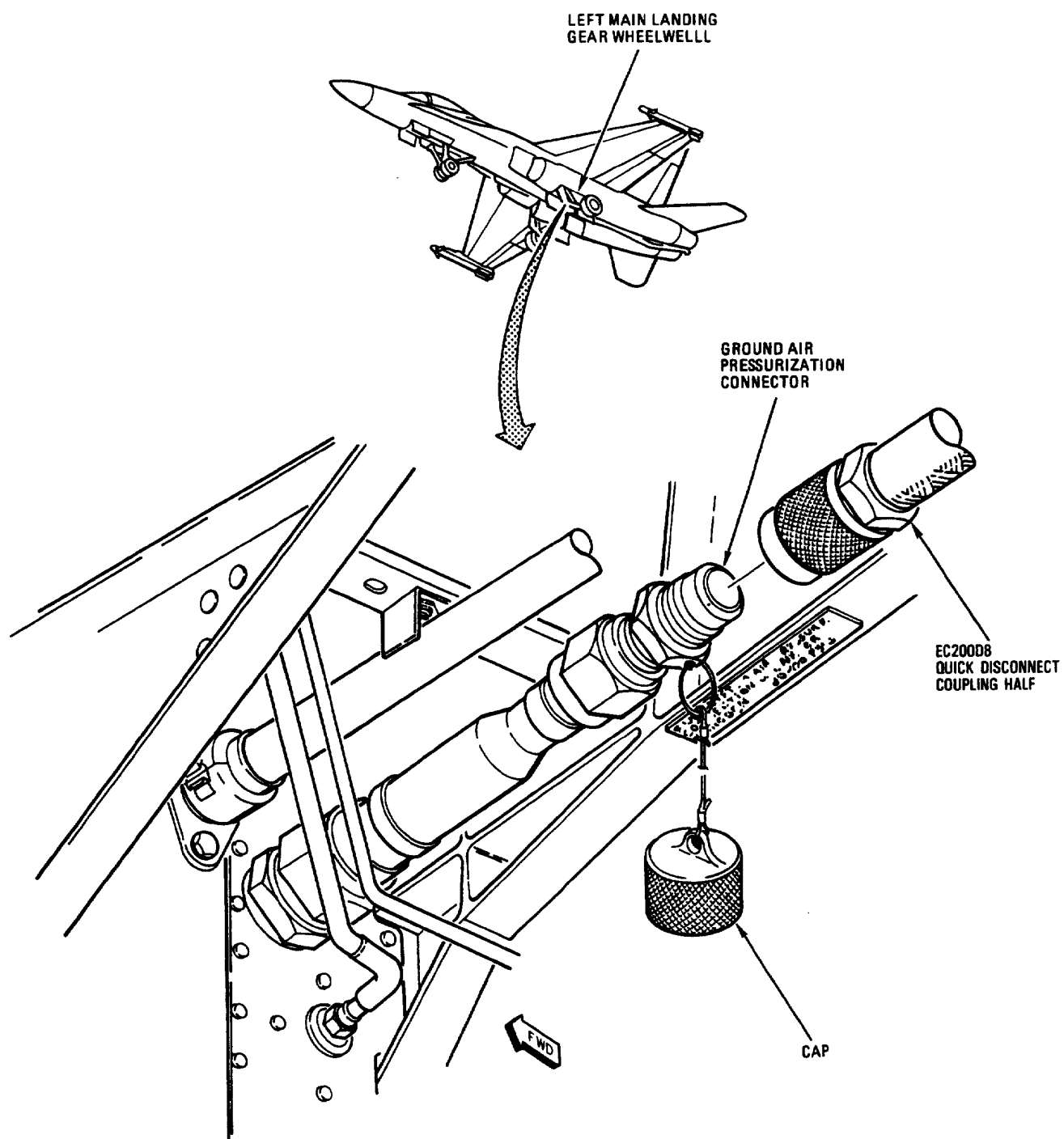


Figure 1. Wing Air Coupling Valve (5VAU577 or 5VAV578) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		WING AIR COUPLING VALVE (5VAU577 OR 5VAV578)									
1	M25988/1-131	.	PACKING						1		PAOZZ
2	60863-2	.	VALVE ASSEMBLY, RELIEF, PRESSURE AND TEMPERATURE - COUPLING (WING AIR COUPLING VALVE) (86090) (MCDONNELL SPEC 74-580058-205) (5VAU577 OR 5VAV578)						1		PAOOO
	60863-1	.	SEE ABOVE						1	*	PAOOO
3	MS24693C274	.	SCREW						3		PAOZZ
4	M25988/1-126	.	PACKING						1		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. Wing Air Coupling Valve (5VAU577 or 5VAV578) (Sheet 4)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
FUEL SYSTEM CONTROL PANEL
(5A-H027)
INTERNAL FUEL TRANSFER SYSTEM

Reference Material

Line Maintenance Procedures A1-F18AC-LMM-000
Plane Captain Manual A1-F18AC-PCM-000

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Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41		Throttle Thrust Sensitivity, Reduction of (ECP MDA-F18-00054C1)	1 Oct 87	-

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Push throttle levers forward as required to remove panel (1, figure 1).

c. Press and rotate four fasteners (figure 1) 90° then lift panel (1) out of left console.

d. Disconnect connector (2) from panel (1), then remove panel.

2. INSTALLATION.

a. Make sure electrical power is not applied (A1-F18AC-LMM-000).

b. Prepare mating surfaces of panel (1) and structure for electrical bond (A1-F18AC-LMM-000).

c. Connect connector (2, figure 1) to panel (1) in left console.

d. Install panel (1), then press and rotate four fasteners 90° to locked position.

e. Return throttle levers to aft cutoff position.

f. On cockpit FUEL system control panel, make sure PROBE control switch is set to RETRACT.

g. Apply electrical and hydraulic power (A1-F18AC-LMM-000).

h. Set PROBE control switch to EXTEND and make sure inflight refueling probe opens smoothly.

i. Set PROBE control switch to RETRACT and make sure inflight refueling probe retracts.

j. Remove hydraulic and electrical power (A1-F18AC-LMM-000).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

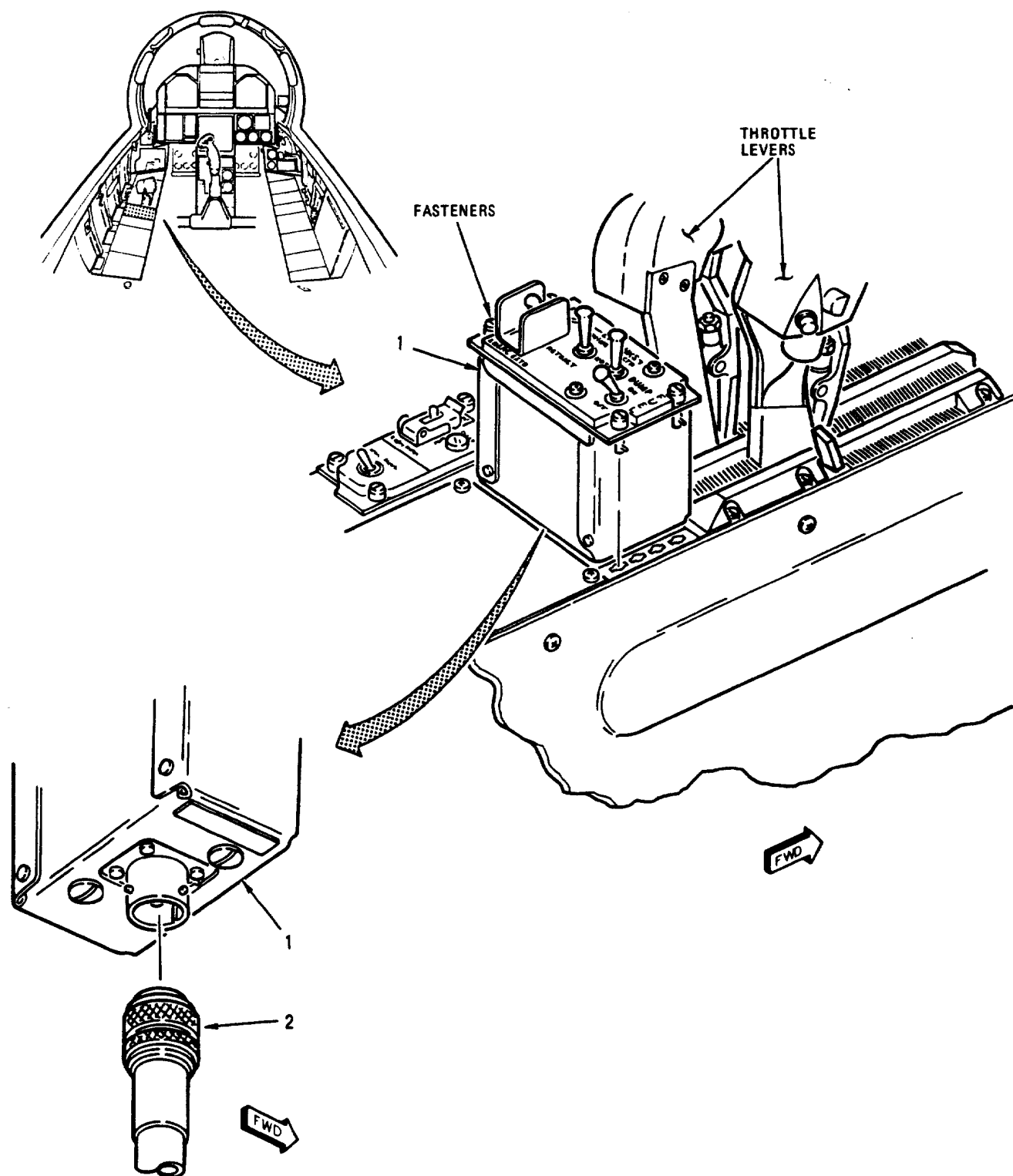


Figure 1. Fuel System Control Panel (5A-H027) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		FUEL SYSTEM CONTROL PANEL ----- (5A-H027)									
1	74A800798-1005	.	PANEL ASSEMBLY - CONTROL BOX, -----						1	A	PAOGG
			FUEL (FUEL SYSTEM CONTROL PANEL) (76301) (5A-H027)								
	74A800798-1011	.	PANEL ASSEMBLY - CONTROL BOX, -----						1	B	PAOGG
			FUEL (FUEL SYSTEM CONTROL PANEL) (76301) (5A-H027)								
2	MS27467T15B35SA	.	CONNECTOR, PLUG (5P-H027) -----						1		PAOZZ
		CODE	USABLE ON		MODEL						
		A	161353 THRU 161528 BEFORE F18 AFC 41		F/A-18A/B						
		B	161702 & UP: ALSO 161353 THRU 161528 AFTER F18 AFC 41		F/A-18A/B						

Figure 1. Fuel System Control Panel (5A-H027) (Sheet 2)

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
NO. 1 FUEL TANK FUEL TRANSFER SHUTOFF VALVE
(5VAP534)
AND
PILOT VALVE
(5VAP537)
INTERNAL FUEL TRANSFER SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover F/A-18A	WP003 00
No. 1 Fuel Tank Access Cover F/A-18B	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000
Structural Hardware	NAVAIR 01-1A-8

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 IAFC 024	4 Mar 83	Fuel System, Motive Flow System Couplings, Re- placement of (ECP MDA F18-00143)	1 Mar 83	-
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle. (ECP MDA F18-00055C1)	15 Jul 86	-
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA F18-00072C1)	15 Oct 86	-

1. NO. 1 FUEL TANK FUEL TRANSFER SHUTOFF VALVE AND PILOT VALVE 161353 THRU 161519 BEFORE F18 AFC 39 AND F18 AFC 53.



Petrolatum, Technical

2

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing (2)	MS29513-218
Packing	MS29513-222
Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect coupling (3, figure 1, detail A) from valve (4) and remove packings (2).
- c. Disconnect tube (7) from nipple (6).
- d. Remove valve (4), packing (8), and attaching parts.
- e. Remove nipple (6) and packing (5) from valve (4).
- f. Disconnect elbow (14) from no. 1 fuel tank transfer precheck valve.
- g. Remove valve (10) and attaching parts.

- h. Loosen nut (13) and remove elbow (14), retainer (12), and packing (11).

3. INSTALLATION.

- a. Do general preparation for installation (WP013 00).

- b. Lubricate new packings with petrolatum.
- c. Install packing (11, figure 1, detail A), retainer (12), nut (13), and elbow (14) on valve (10).
- d. Install valve (10), with attaching parts on support.
- e. Connect elbow (14) to no. 1 fuel tank transfer precheck valve and tighten nut (13).
- f. Install packing (5) on nipple (6) and install nipple in valve (4).
- g. Install packings (2 and 8).
- h. Prepare mating surfaces of valve (4) and tube (9) for electrical bonding (A1-F18AC-LMM-000).
- i. Install valve (4), attaching parts and coupling (3).
- j. Connect tube (7) to nipple (6).
- k. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).
- l. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

4. NO. 1 FUEL TANK FUEL TRANSFER SHUTOFF VALVE AND PILOT VALVE 161520 THRU 161965 BEFORE F18 AFC 39 AND F18 AFC 53.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing (2)	MS29513-218
Packing	MS29513-222
Petrolatum, Technical	VV-P-236 (CAGE 81348)

5. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect coupling (3, figure 2, detail A) from valve (4) and remove packings (2).
- c. Remove valve (4), packing (5) and attaching parts.
- d. Remove elbow (9), nut (7), spacer (8) and packing (6) from valve (4).
- e. Disconnect elbow (16) from no. 1 fuel tank transfer precheck valve.
- f. Remove valve (12) and attaching parts.
- g. Loosen nut (15) and remove elbow (16), retainer (14) and packing (13).

6. INSTALLATION.

- a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

- b. Lubricate new packings with petrolatum.
- c. Install packing (13, figure 2, detail A), retainer (14), nut (15) and elbow (16) on valve (12).
- d. Install valve (12), with attaching parts on support.
- e. Connect elbow (16) to no. 1 fuel tank transfer precheck valve and tighten nut (15).
- f. Install packing (6), elbow (9), spacer (8) and nut (7) on valve (4).
- g. Install packings (2 and 5).
- h. Prepare mating surfaces of valve (4) and tube (10) for electrical bonding (A1-F18AC-LMM-000).

- i. Install valve (4), attaching parts and coupling (3).

- j. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).

- k. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

7. NO. 1 FUEL TANK FUEL TRANSFER SHUTOFF VALVE AND PILOT VALVE 161966 AND UP; ALSO 161353 THRU 161965 AFTER F18 AFC 39 AND F18 AFC 53.

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing (2)	MS29513-218
Packing	MS29513-222
Petrolatum, Technical	VV-P-236 (CAGE 81349)

8. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect coupling (3, figure 3, detail A) from valve (4) and remove packings (2).
- c. Disconnect elbow (8) from elbow (9).
- d. Remove valve (4), packing (5), and attaching parts.
- e. Remove elbow (8), nut (7), and packing (6) from valve (4).
- f. Disconnect tube (14) from nipple (13).
- g. Remove valve (11) and attaching parts.
- h. Remove nipple (13) and packing (12) from valve (11).

9. INSTALLATION.

- a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

- b. Lubricate new packings with petrolatum.
- c. Install packing (12, figure 3, detail A) and nipple (13) on valve (11).
- d. Install valve (11), with attaching parts on support.
- e. Connect tube (14) on nipple (13).
- f. Install packing (6), elbow (8), and nut (7) on valve (4).
- g. Install packings (2 and 5).
- h. Prepare mating surfaces of valve (4) and tube (10) for electrical bonding (A1-F18AC-LMM-000).
- i. Install valve (4), attaching parts, and coupling (3).
- j. Connect elbow (8) to elbow (9) and tighten nut (7).
- k. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).
- l. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

10. NO. 1 FUEL TANK FUEL TRANSFER PILOT VALVE SUPPORT.**Support Equipment Required**

None

Materials Required

None

11. REMOVAL.

- a. Remove pilot valve per paragraph 2, 5 or paragraph 8.
- b. Remove support (1 or 8, figure 4) and attaching parts.
- c. Inspect support (1 or 8) for conditions listed below:
- (1) Cracks
 - (2) Corrosion
 - (3) Sharp edges that could damage tank
 - (4) Stripped or cross threaded plate nuts

12. INSTALLATION.

- a. Install support (1 or 8, figure 4) and attaching parts.
- b. Install pilot valve per applicable Installation instructions, this WP.

13. REPAIR.**Support Equipment Required**

None

Materials Required

None

14. DISASSEMBLY.**NOTE**

Repair of support assembly is limited to replacement of nuts and support.

- a. If damaged, remove support (1 or 8) per Removal, this WP.

b. If damaged, remove plate nuts (5 or 6) or support (4 or 11) (NAVAIR 01-1A-8).

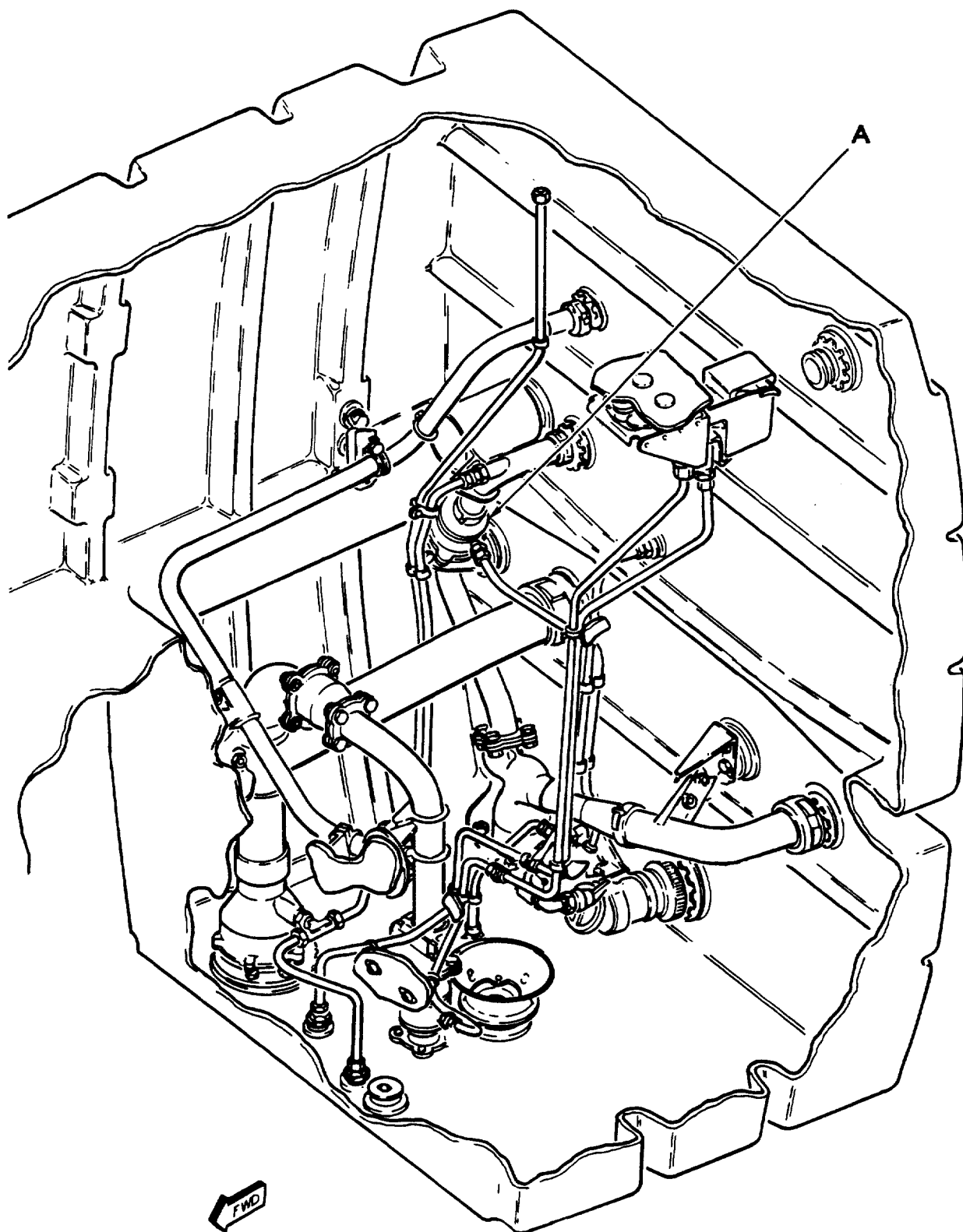
15. ASSEMBLY.

a. Install support (4 or 11, figure 3) or nuts (5 or 6) (NAVAIR 01-1A-8).

b. Install supports (1 or 8) per Installation, this WP.

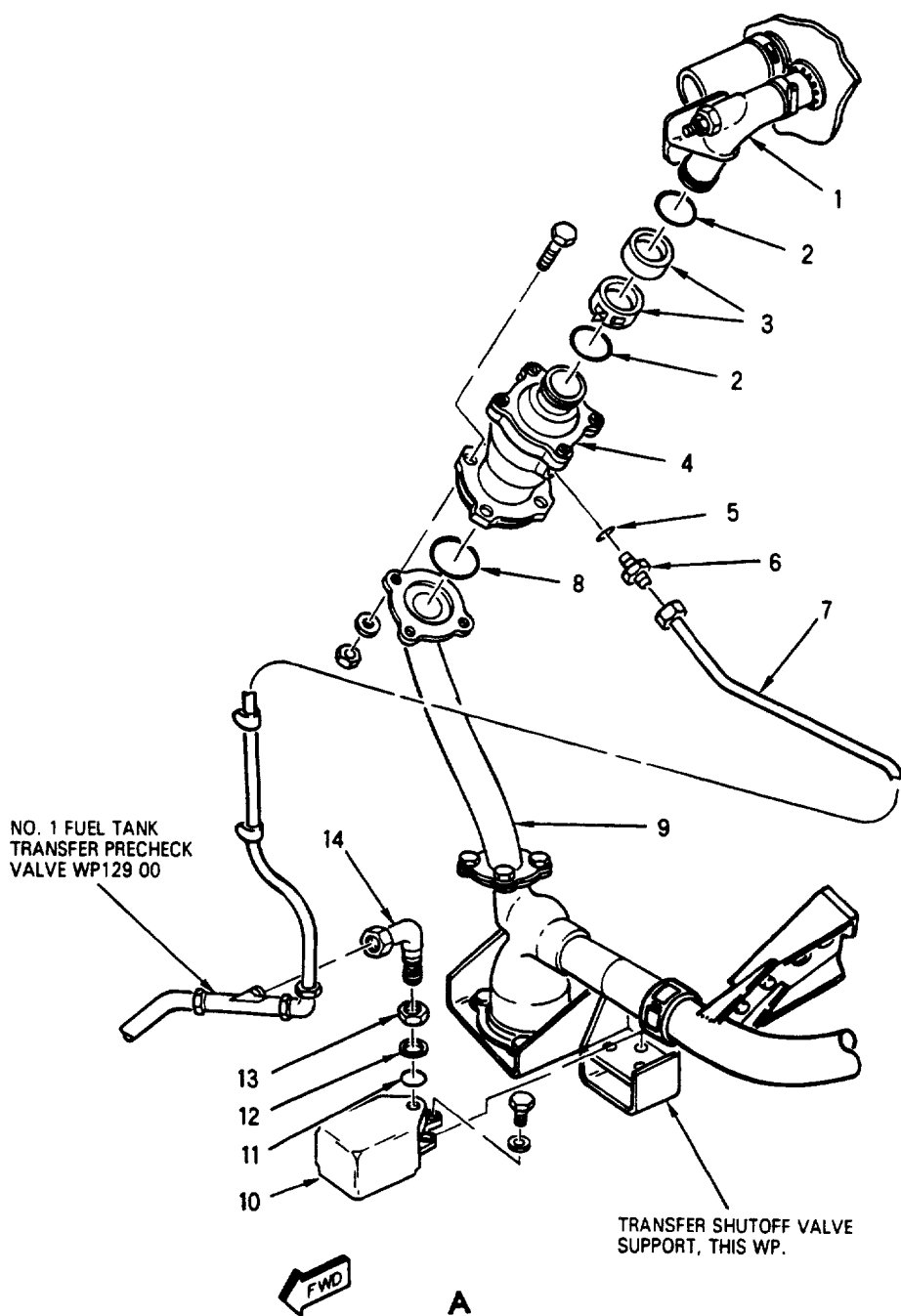
16. ILLUSTRATED PARTS BREAKDOWN.

17. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



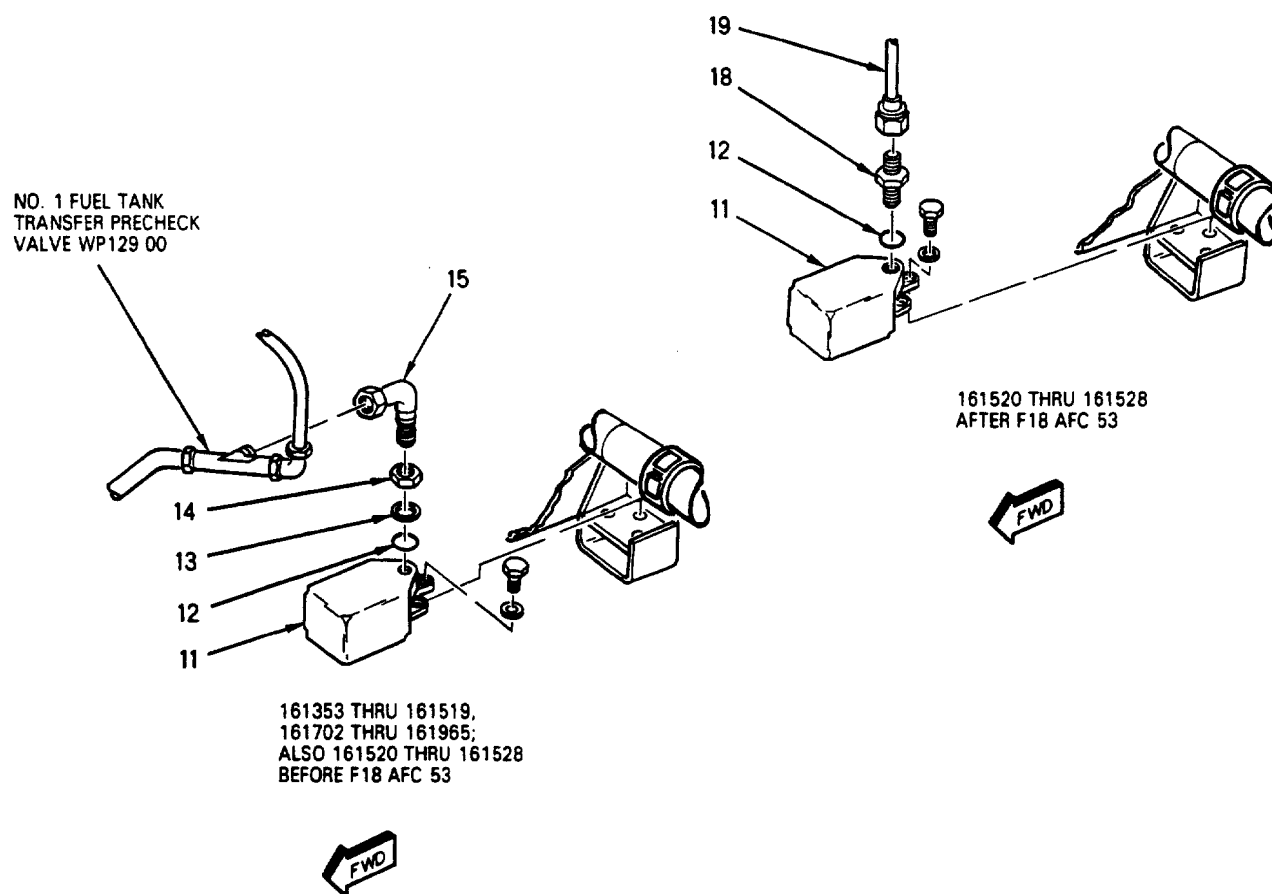
10500101

Figure 1. No.1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161353 THRU 161519 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 1)



10500102

Figure 1. No.1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161353 THRU 161519 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 2)



CONFIGURATION X

10500103

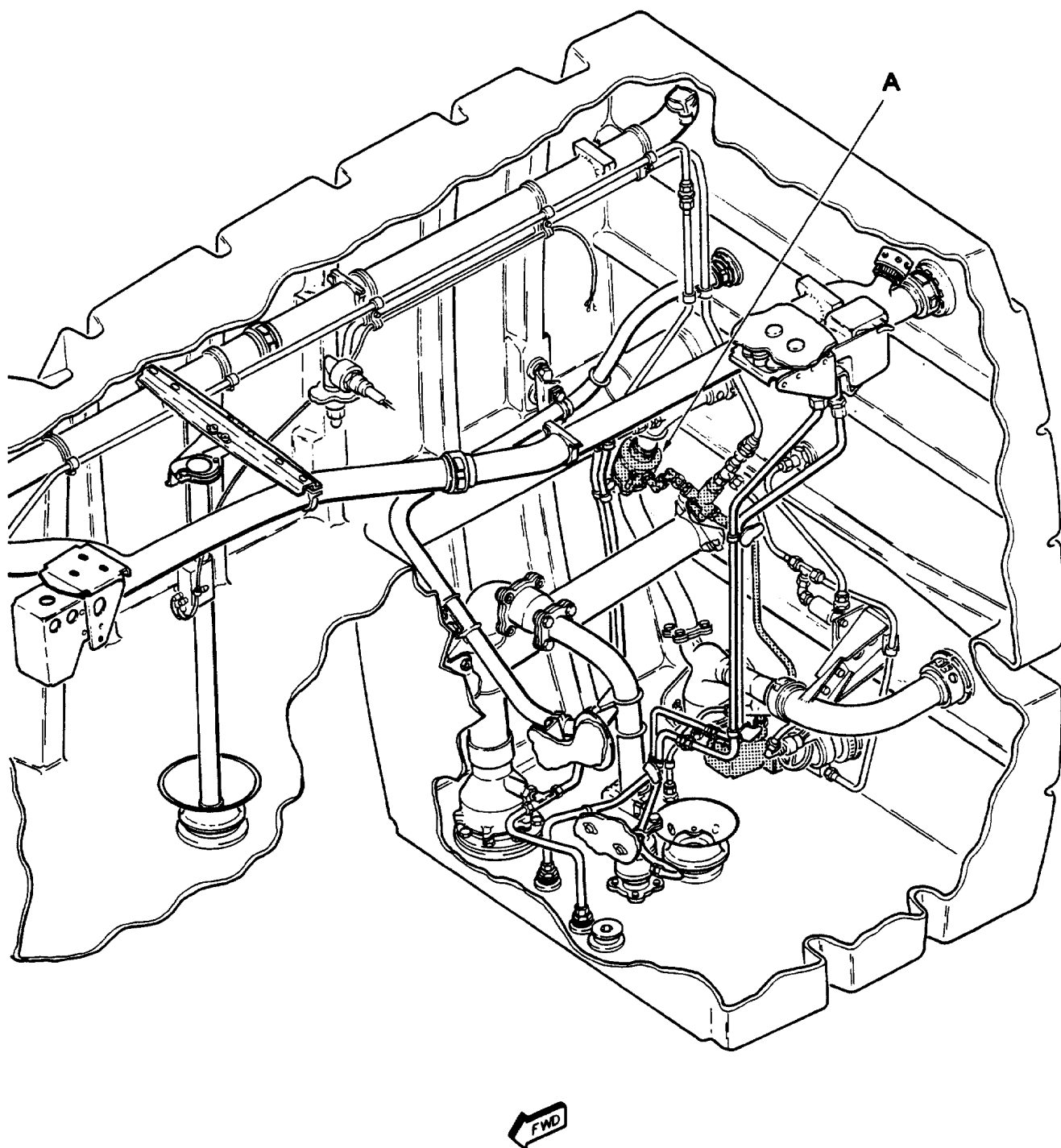
Figure 1. No.1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) -
161353 THRU 161519 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		NO. 1 FUEL TANK TRANSFER SHUTOFF			
		VALVE (5VAP534) AND PILOT			
		VALVE (5VAP537) - 161353 THRU			
		161519 BEFORE F18 AFC 39 AND			
		F18 AFC 53			
1	74A582019-1005	. TUBE ASSEMBLY - ELBOW, MOTIVE	1		XBOZZ
		FLOW, TANK NO. 1, UPPER (76301)			
		(SUPERSEDES 74A582019-1003)			
2	MS29513-218	. PACKING	2		PAOZZ
3	W901K20DE	. COUPLING, CLAMP, GROOVED	1	*	PAOZZ
		(79326) (MCDONNELL SPEC			
		7M765-20D) (INCLUDES SLEEVE)			
	14J12-20A	. COUPLING, CLAMP, GROOVED	1	*	PAOZZ
		(24984) (MCDONNELL SPEC			
		7M765-20D) (INCLUDES SLEEVE)			
4	2770042-113	. VALVE, SHUTOFF - FUEL TRANSFER	1		PAOZZ
		(NO. 1 FUEL TANK TRANSFER			
		SHUTOFF VALVE) (92003)			
		(MCDONNELL SPEC 74-580164-213)			
		(5VAP534) (REPLACES 2770042-111,			
		2770042-109 & 2770042-107)			
	2770042-111	. VALVE, SHUTOFF - FUEL TRANSFER	1	*	PAOZZ
		(NO. 1 FUEL TANK TRANSFER			
		SHUTOFF VALVE) (92003)			
		(MCDONNELL SPEC 74-580164-211)			
		(5VAP534) (USE UNTIL EXHAUSTED)			
	2770042-109	. VALVE, SHUTOFF - FUEL TRANSFER	1	*	PAOZZ
		(NO. 1 FUEL TANK TRANSFER			
		SHUTOFF VALVE) (92003)			
		(MCDONNELL SPEC 74-580164-209)			
		(5VAP534) (USE UNTIL EXHAUSTED)			
	2770042-107	. VALVE, SHUTOFF - FUEL TRANSFER	1	*	PAOZZ
		(NO. 1 FUEL TANK TRANSFER			
		SHUTOFF VALVE) (92003)			
		(MCDONNELL SPEC 74-580164-201)			
		(5VAP534) (USE UNTIL EXHAUSTED)			
	NAS674V8	. BOLT (AP)	4		PAOZZ
	AN960JD416	. WASHER (AP)	4		PAOZZ
	NAS1291C4M	. NUT (AP)	4		PAOZZ
5	MS29512-06	. PACKING	1		PAOZZ
6	7M637BD-6D	. NIPPLE, TUBE (76301)	1		PAOZZ
7	74A582159-1003	. TUBE ASSEMBLY, METAL - MOTIVE	1		MGOZZ
		FLOW Y380.412 (76301)			
8	MS29513-222	. PACKING	1		PAOZZ
9	74A582018-1001	. TUBE ASSEMBLY - MOTIVE FLOW,	1		PAOZZ
		TANK NO. 1, LOWER (76301)			
10	2760110-102	. VALVE, FLOAT, AIRCRAFT - FUEL	1	*	PAOZZ
		TRANSFER (NO. 1 FUEL TANK			
		PILOT VALVE) (92003)			
		(MCDONNELL SPEC 74-580164-203)			
		(5VAP537)			
	2760110-101	. VALVE, FLOAT, AIRCRAFT - FUEL	1	*	PAOZZ
		TRANSFER (NO. 1 FUEL TANK			
		PILOT VALVE) (92003)			
		(MCDONNELL SPEC 74-580164-203)			
		(5VAP537)			
	NAS674V5	. BOLT (AP)	3		PAOZZ
	AN960JD416	. WASHER (AP)	3		PAOZZ
11	MS29512-06	. PACKING	1		PAOZZ
12	MS28773-06	. RETAINER	1		PAOZZ
13	AN6289D6	. NUT	1		PAOZZ

Figure 1. No.1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161353 THRU 161519 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 4)

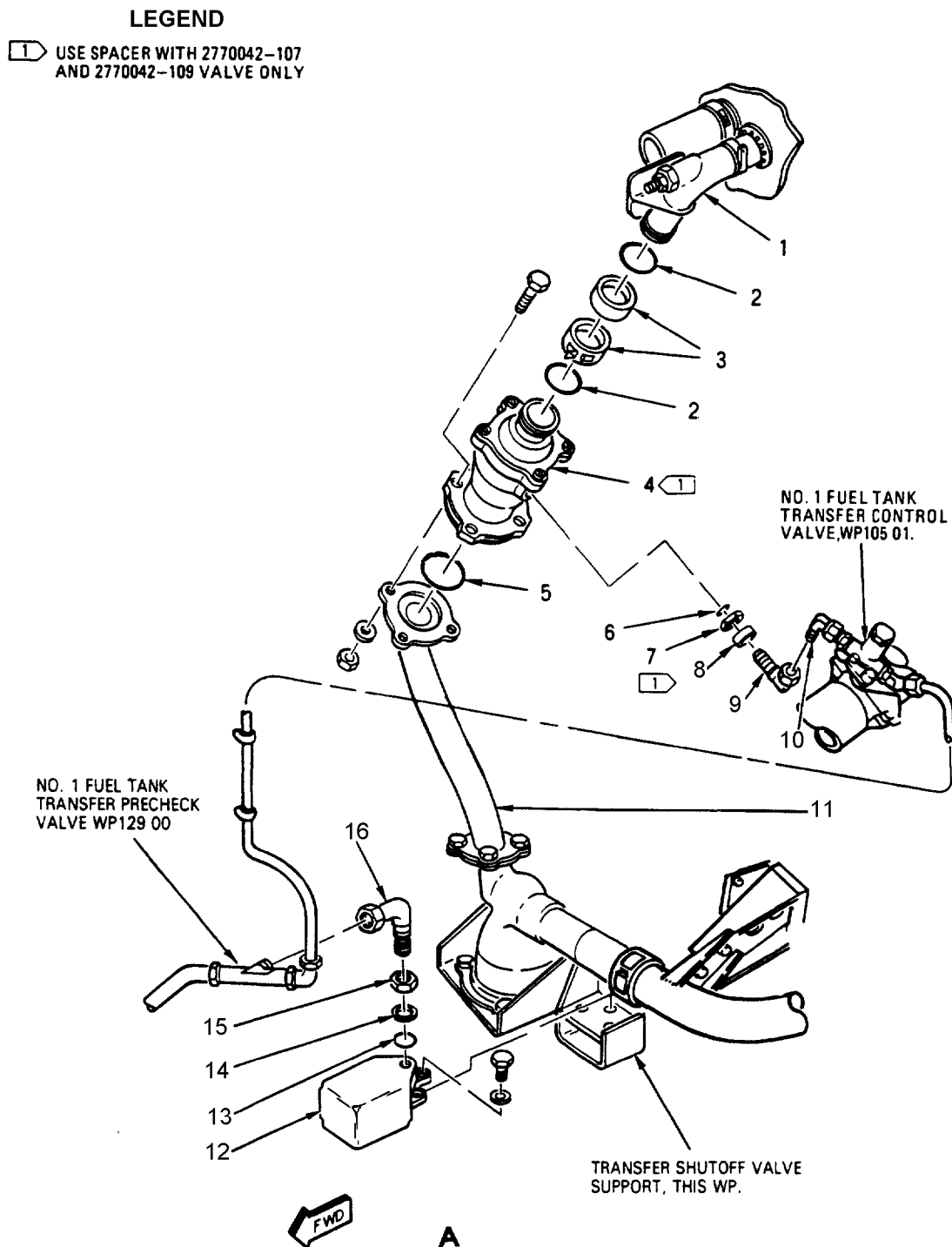
INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
14	ST7M263V6	.						ELBOW (76301)	1	*	PAOZZ
	ST7M263DA6	.						ELBOW (76301)	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)



10500201

Figure 2. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161520 THRU 161965 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 1)



10500202

Figure 2. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161520 THRU 161965 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE (5VAP534) AND PILOT VALVE (5VAP537) - 161520 THRU 161965 BEFORE F18 AFC 39 AND F18 AFC 53									
1	74A582019-1005	.	TUBE ASSEMBLY - ELBOW, MOTIVE FLOW, TANK NO. 1, UPPER (76301) (SUPERSEDES 74A582019-1003)						1		XBOZZ
2	MS29513-218	.	PACKING						2		PAOZZ
3	W901K20DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-20D) (INCLUDES SLEEVE)						1	*	PAOZZ
	14J12-20A	.	COUPLING, CLAMP, GROOVED (24984) (MCDONNELL SPEC 7M765-20D) (INCLUDES SLEEVE)						1	*	PAOZZ
4	2770042-113	.	VALVE, SHUTOFF - FUEL TRANSFER (NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580164-213) (5VAP534) (REPLACES 2770042-111, 2770042-109 & 2770042-107)						1		PAOZZ
	2770042-111	.	VALVE, SHUTOFF - FUEL TRANSFER (NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580164-211) (5VAP534) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
	2770042-109 @	.	VALVE, SHUTOFF - FUEL TRANSFER (NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580164-209) (5VAP534) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
	2770042-107 @	.	VALVE, SHUTOFF - FUEL TRANSFER (NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580164-201) (5VAP534) (USE UNTIL EXHAUSTED)						1	*	PAOZZ
	NAS674V8	.	BOLT (AP)						4		PAOZZ
	AN960JD416	.	WASHER (AP)						4		PAOZZ
	NAS1291C4M	.	NUT (AP)						4		PAOZZ
5	MS29513-222	.	PACKING						1		PAOZZ
6	MS29512-06	.	PACKING						1		PAOZZ
7	AN6289D6	.	NUT						1		PAOZZ
8	NAS43DD9-13 @	.	SPACER						1		PAOZZ
9	ST7M263V6 @	.	ELBOW (76301)						1		PAOZZ
10	7M148V6	.	ELBOW (76301)						1		PAOZZ
11	74A582018-1001	.	TUBE ASSEMBLY - MOTIVE FLOW, TANK NO. 1, LOWER (76301)						1		PAOZZ
12	2760110-102	.	VALVE, FLOAT, AIRCRAFT - FUEL TRANSFER (NO. 1 FUEL TANK PILOT VALVE) (92003) (MCDONNELL SPEC 74-580164-203) (5VAP537)						1	*	PAOZZ
	2760110-101	.	VALVE, FLOAT, AIRCRAFT - FUEL TRANSFER (NO. 1 FUEL TANK PILOT VALVE) (92003) (MCDONNELL SPEC 74-580164-203) (5VAP537)						1	*	PAOZZ
	NAS674V5	.	BOLT (AP)						3		PAOZZ
	AN960JD416	.	WASHER (AP)						3		PAOZZ
13	MS29512-06	.	PACKING						1		PAOZZ
14	MS28773-06	.	RETAINER						1		PAOZZ

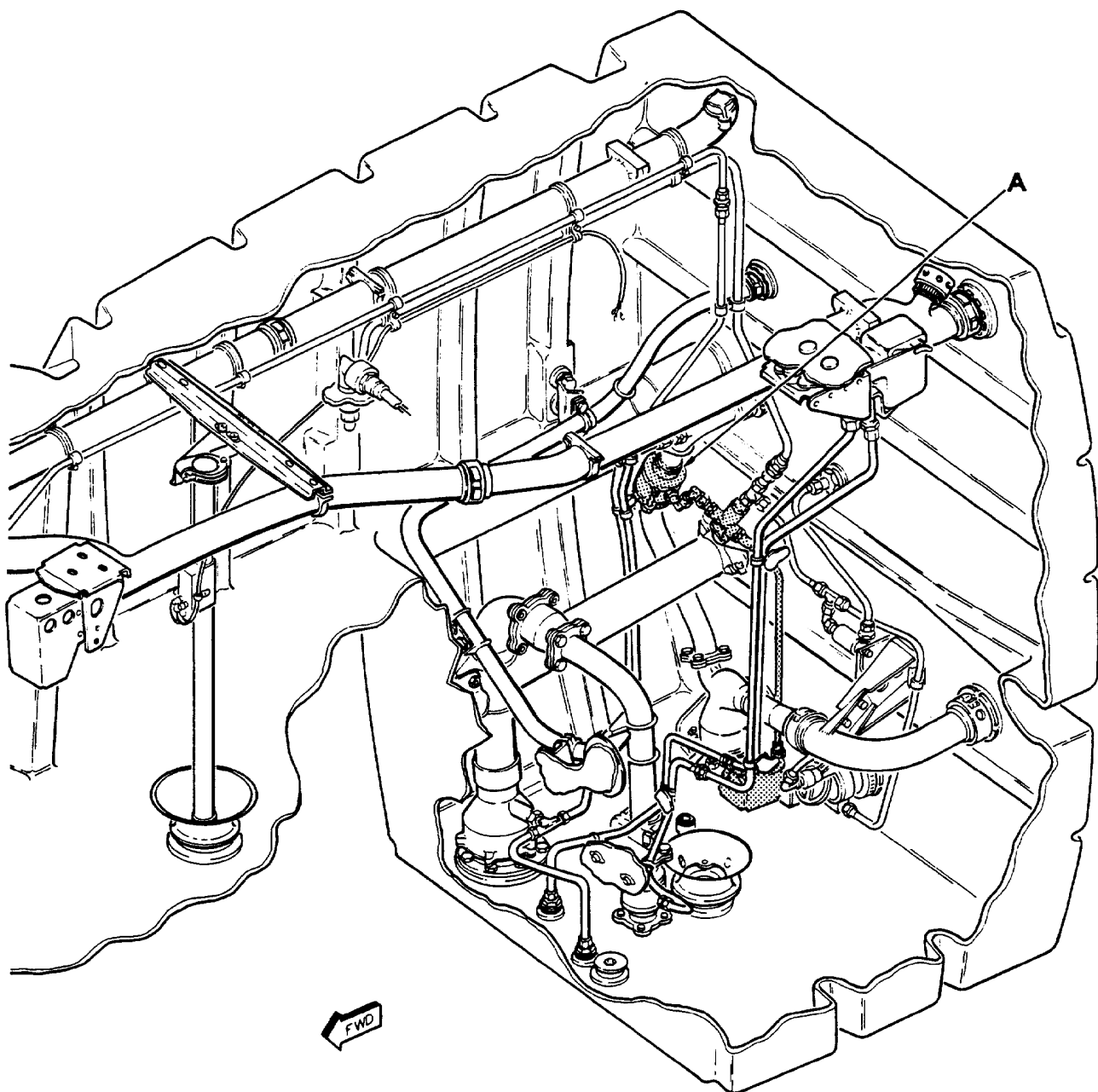
Figure 2. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161520 THRU 161965 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
15	AN6289D6	.						NUT	1		PAOZZ
16	ST7M263V6	.						ELBOW (76301)	1	*	PAOZZ
	ST7M263DA6	.						ELBOW (76301)	1	*	PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

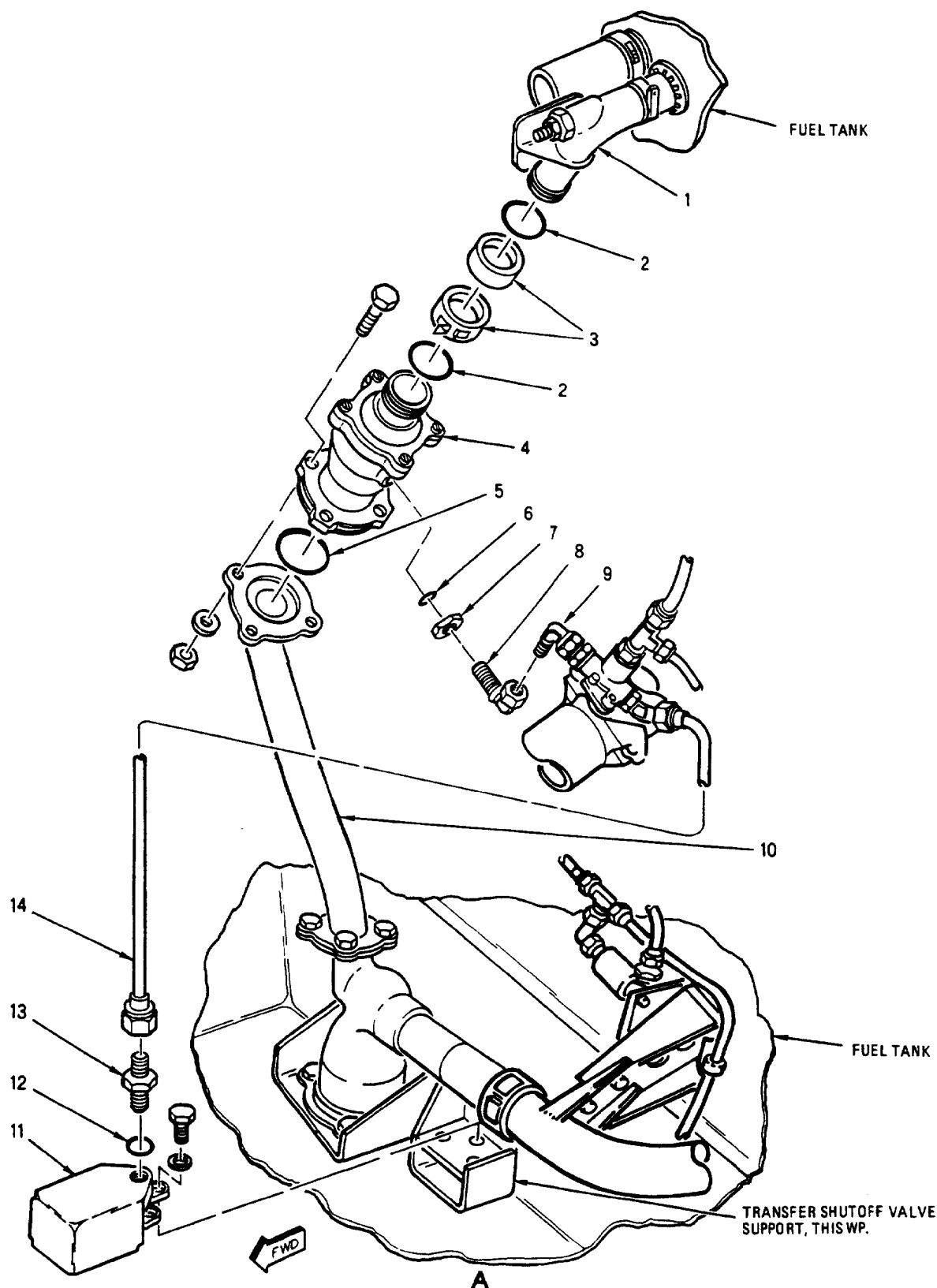
@ USE NAS43DD9-13 SPACER ONLY
WITH 2770042-107 AND 2770042-109
VALVES WHEN ST7M263V6 ELBOW
IS INSTALLED.

**Figure 2. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) -
161520 THRU 161965 BEFORE F18 AFC 39 AND F18 AFC 53 (Sheet 4)**



10500301

Figure 3. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161966 AND UP; ALSO 161353 THRU 161965 AFTER F18 AFC 39 AND F18 AFC 53 (Sheet 1)



10500302

Figure 3. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161966 AND UP; ALSO 161353 THRU 161965 AFTER F18 AFC 39 AND F18 AFC 53 (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE (5VAP534) AND PILOT VALVE (5VAP537) - 161966 AND UP; ALSO 161353 THRU 161965 AFTER F18 AFC 39 AND F18 AFC 53								
1	74A582019-1005	.	TUBE ASSEMBLY - ELBOW, MOTIVE FLOW, TANK NO. 1, UPPER (76301) (SUPERSEDES 74A582019-1003)					1		XBOZZ
2	MS29513-218	.	PACKING					2		PAOZZ
3	W901K20DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-20D) (INCLUDES SLEEVE)					1	*	PAOZZ
	14J12-20A	.	COUPLING, CLAMP, GROOVED (24984) (MCDONNELL SPEC 7M765-20D) (INCLUDES SLEEVE)					1	*	PAOZZ
4	2770042-113	.	VALVE, SHUTOFF - FUEL TRANSFER (NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580164-213) (5VAP534) (REPLACES 1770042-111)					1		PAOZZ
	2770042-111	.	SEE ABOVE (MCDONNELL SPEC 74-580164-211) (USE UNTIL EXHAUSTED)					1	*	PAOZZ
	NAS674V8	.	BOLT (AP)					4		PAOZZ
	AN960JD416	.	WASHER (AP)					4		PAOZZ
	NAS1291C4M	.	NUT (AP)					4		PAOZZ
5	MS29513-222	.	PACKING					1		PAOZZ
6	MS29512-06	.	PACKING					1		PAOZZ
7	AN6289D6	.	NUT					1		PAOZZ
8	ST7M263V6	.	ELBOW (76301)					1		PAOZZ
9	7M148V6	.	ELBOW (76301)					1		PAOZZ
10	74A582018-1001	.	TUBE ASSEMBLY - MOTIVE FLOW, TANK NO. 1, LOWER (76301)					1		PAOZZ
11	2760110-102	.	VALVE, FLOAT, AIRCRAFT - FUEL TRANSFER (NO. 1 FUEL TANK PILOT VALVE) (92003) (MCDONNELL SPEC 74-580164-203) (5VAP537)					1	*	PAOZZ
	2760110-101	.	VALVE, FLOAT, AIRCRAFT - FUEL TRANSFER (NO. 1 FUEL TANK PILOT VALVE) (92003) (MCDONNELL SPEC 74-580164-203) (5VAP537)					1	*	PAOZZ
	NAS674V5	.	BOLT (AP)					3		PAOZZ
	AN960JD416	.	WASHER (AP)					3		PAOZZ
12	MS29512-06	.	PACKING					1		PAOZZ
13	7M637BD-6D	.	NIPPLE, TUBE (76301)					1		PAOZZ
14	74A582169-1005	.	TUBE ASSEMBLY, METAL - MOTIVE FLOW Y380.476 (76301)					1		MGOZZ

* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

Figure 3. No. 1 Fuel Tank Transfer Shutoff Valve (5VAP534) and Pilot Valve (5VAP537) - 161966 AND UP; ALSO 161353 THRU 161965 AFTER F18 AFC 39 AND F18 AFC 53 (Sheet 3)

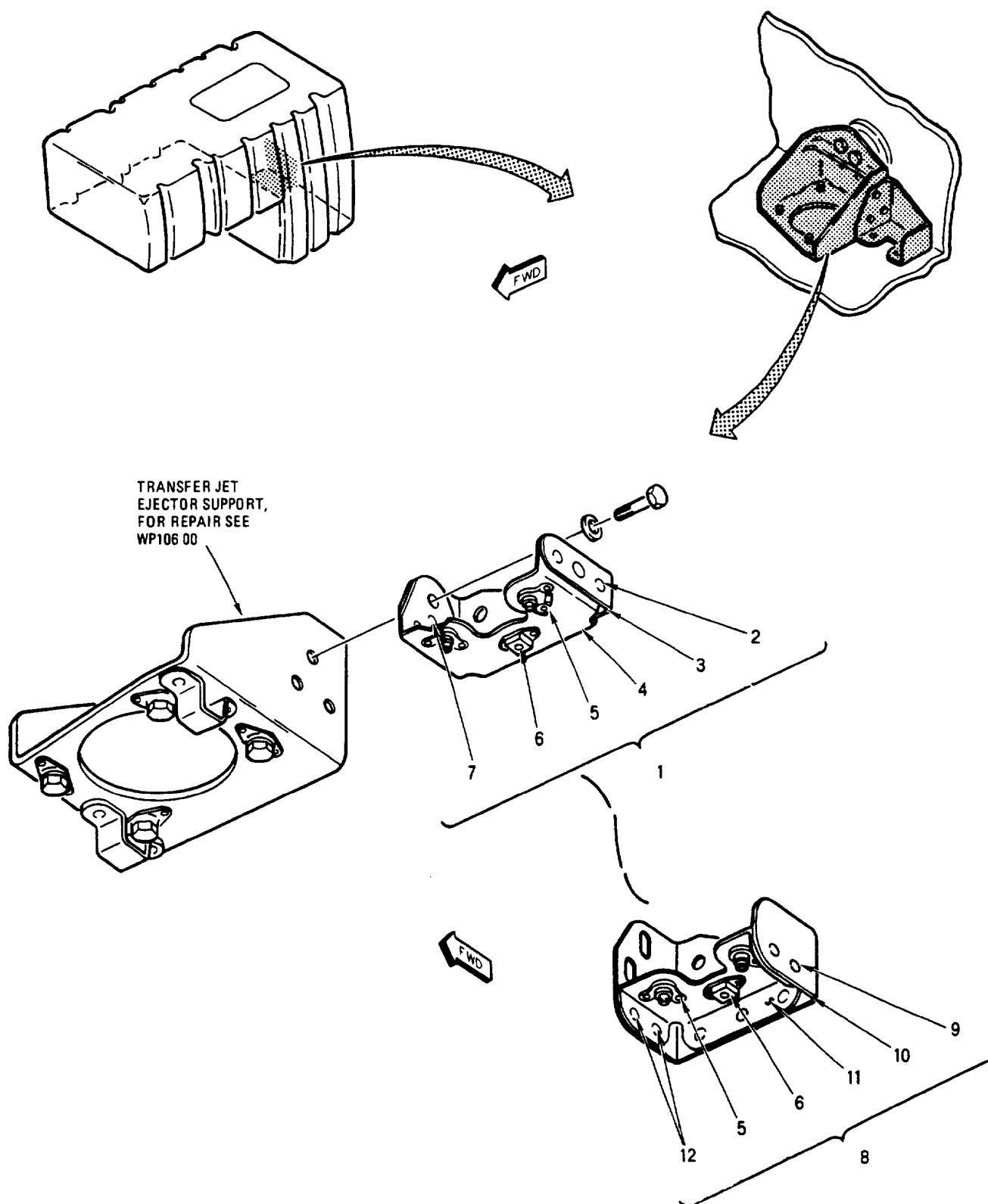


Figure 4. No. 1 Fuel Tank Fuel Transfer Pilot Valve Support (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		NO. 1 FUEL TANK FUEL TRANSFER			
		PILOT VALVE SUPPORT			
1	74A582090-1005	. SUPPORT - VALVE, PILOT FLOAT,	1		XBOOO
		MOTIVE FLOW, TANK NO. 1			
		(NO. 1 FUEL TANK FUEL			
		TRANSFER PILOT VALVE			
		SUPPORT) (76301)			
		(SUPERSEDES 74A582090-1003)			
	NAS674V2	. BOLT (AP)	3		PAOZZ
	AN960JD416	. WASHER (AP)	3		PAOZZ
2	MS20470AD5 #	. RIVET	5		-
3	74A582090-2011	. CHANNEL (76301)	1		MDOZZ
4	74A582090-2013	. SUPPORT (76301)	1		MDOZZ
5	NS103597-048	. NUT, SELF-LOCKING, PLATE (80539)	2	*	PAOZZ
		(MCDONNELL SPEC ST3M470C4M)			
	F10965-1-4	. NUT, SELF-LOCKING, PLATE (72962)	2	*	PAOZZ
		(MCDONNELL SPEC ST3M470C4M)			
	F29339-01-4	. NUT, SELF-LOCKING, PLATE (15653)	2	*	PAOZZ
		(MCDONNELL SPEC ST3M470C4M)			
	MS20426AD3 #	. RIVET (AP)	2		-
6	MS21060L4	. NUT, PLATE	1		PAOZZ
	MS20426AD3 #	. RIVET (AP)	2		-
7	MS20426AD4 #	. RIVET	1		-
8	74A582090-1003	. SUPPORT - VALVE, PILOT FLOAT,	1	A	XBOOO
		MOTIVE FLOW, TANK NO. 1			
		(NO. 1 FUEL TANK TRANSFER			
		PILOT VALVE SUPPORT) (76301)			
		(REPLACED BY 74A582090-1005)			
	NAS674V2	. BOLT (AP)	3		PAOZZ
	AN960JD416	. WASHER (AP)	3		PAOZZ
9	MS20470AD5 #	. RIVET	5	A	-
10	74A582090-2007	. CHANNEL (76301)	1	A	MGOZZ
11	74A582090-2009	. SUPPORT (76301)	1	A	MGOZZ
12	MS20426AD5 #	. RIVET	2	A	-

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161353 THRU 161761	F/A-18A/B

Figure 4. No. 1 Fuel Tank Fuel Transfer Pilot Valve Support (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 1 FUEL TANK TRANSFER CONTROL VALVE
(5L-F160)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161520 AND UP; ALSO 161353 THRU 161519 AFTER F/A-18 AFC 39

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover - F/A-18A	WP003 00
No. 1 Fuel Tank Access Cover - F/A-18B	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel system	A1-F18AC-460-200
CG Control System Test	WP035 00
Wiring Repair with Parts Data, General Wiring Repair Procedures	A1-F18AC-WRM-000

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Removal	2
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA F/A-18-00072C1)	15 Oct 86	-
F/A-18 AFC 53	-	Elimination of Tanks 1 and Sneak Circuit, Tank 4 Motive Flow Shut Off Valve and Raised Inverted Baffle (ECP MDA-F/A-18- 00055/C1)	15 Oct 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 120 Inch-Pounds	-
Torque Wrench, 0 to 150 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing	MS29513-222
Packing	M25988-2-116
Petrolatum, Technical	VV-P-236 (FSCM 81348)
Wire, Saftey, Nonelectrical	MS20995NC32 (FSCM 96906)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00)
- b. Disconnect connector (1, figure 1. detail A).
- c. Remove coupling (7) and receptacle (5) with connector (2) and attaching parts.
- d. On 161520 THRU 161761 BEFORE F/A-18 AFC 39 (detail C), disconnect wires Q379F22 (pin 13), Q380A22 (pin 12) and Q381A22 (pin 11) at 5A-E035 splice area (A1-F18AC-WRM-000).
- e. On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39 (detail C), disconnect wires YEL/BLK (pin 11), YEL/WHT (pin 12) and YEL/RED (pin 13) from connector (2).
- f. On 161520 THRU 161761, BEFORE F/A-18 AFC 39, disconnect tube (4, detail B) at valve (14).
- g. On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39, disconnect tee (13, detail B) at valve (15).
- h. Remove elbow (10).
- i. Disconnect tube (19) from elbow (18).

j. Remove clamp (22) and attaching parts.

k. At valve (14) or (15), carefully pull wires through tube (4) one wire at a time.

l. Remove valve (14 or 15).

m. Remove nipple (11), elbow (18), nut (17), retainer (16), packing (12), bracket (20), bolts (21) and washers.

2. INSTALLATION

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. Install packing (12, figure 1, detail B) and nipple (11) on valve (14 or 15).

d. Install nut (17), retainer (16) and packing (12) on elbow (18) and install elbow (18) on valve (14) or (15) fingertight.

e. Install bracket (20) with bolts (21) and washers.

f. Position bracket (20) with valve (14 or 15) and install clamp (22) with attaching parts.



To prevent damage to wires, use caution when wires are unwrapped from around valve and pushed through tube.

NOTE

If wire cannot be pushed through tubing, tubing may be disconnected to ease installation.

g. At valve (14 or 15) carefully push wire through tube (4) one wire at a time.

h. Connect tube (19) to elbow (18) and tighten nut (17). Torque nut (17) 70 to 90 inch-pounds and tube (19) to 60 inch-pounds. (QA)

i. Install elbow (10).

j. On 161520 THRU 161761, Before F/A-18 AFC 39, connect tube (4) to valve (14). Torque tube (4) to 60 inch-pounds. (QA)

k. On 161924 AND UP; ALSO 161353 THRU 161961 AFTER F/A-18 AFC 39, connect tee (13) to valve (15). Torque tee (13) 70 to 90 inch-pounds. (QA)

l. On 161520 THRU 161761 BEFORE F/A-18 AFC 39, (detail C) do substeps below:

(1) Connect wires Q379F22 (pin 13), Q380A22 (pin 11) and Q381A22 (pin 11) at 5A-E035 splice area (A1-F18AC-WRM-000).

(2) Check for continuity between valve (14 or 15) and receptacle 5J-E035. (QA)

m. On 16924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39, (detail C), connect wires YEL/BLK (pin 11), YEL/WHT (pin 12) and

YEL/RED (pin 13) to connector (2) (A1-F18AC-WRM-000).

n. Install packing (6), receptacle (5), receptacle connector (2) and coupling (7).

o. Make sure mounting nut is safetied with lock-wire. (QA)

p. Connect connector (1).

q. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

r. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).

s. Do no. 1 fuel tank transfer test (A1-F18AC-460-200, WP012 03).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

LEGEND

- 1 F/A-18A SHOWN F/A-18B SIMILAR.
- 2 FOR ASSEMBLY SEE 74A770174.
A1-F18AC-WRM-000.
- 3 161520 THRU 161761 BEFORE F18 AFC 39.
- 4 161924 AND UP; ALSO 161353 THRU 161761
AFTER F18 AFC 39.

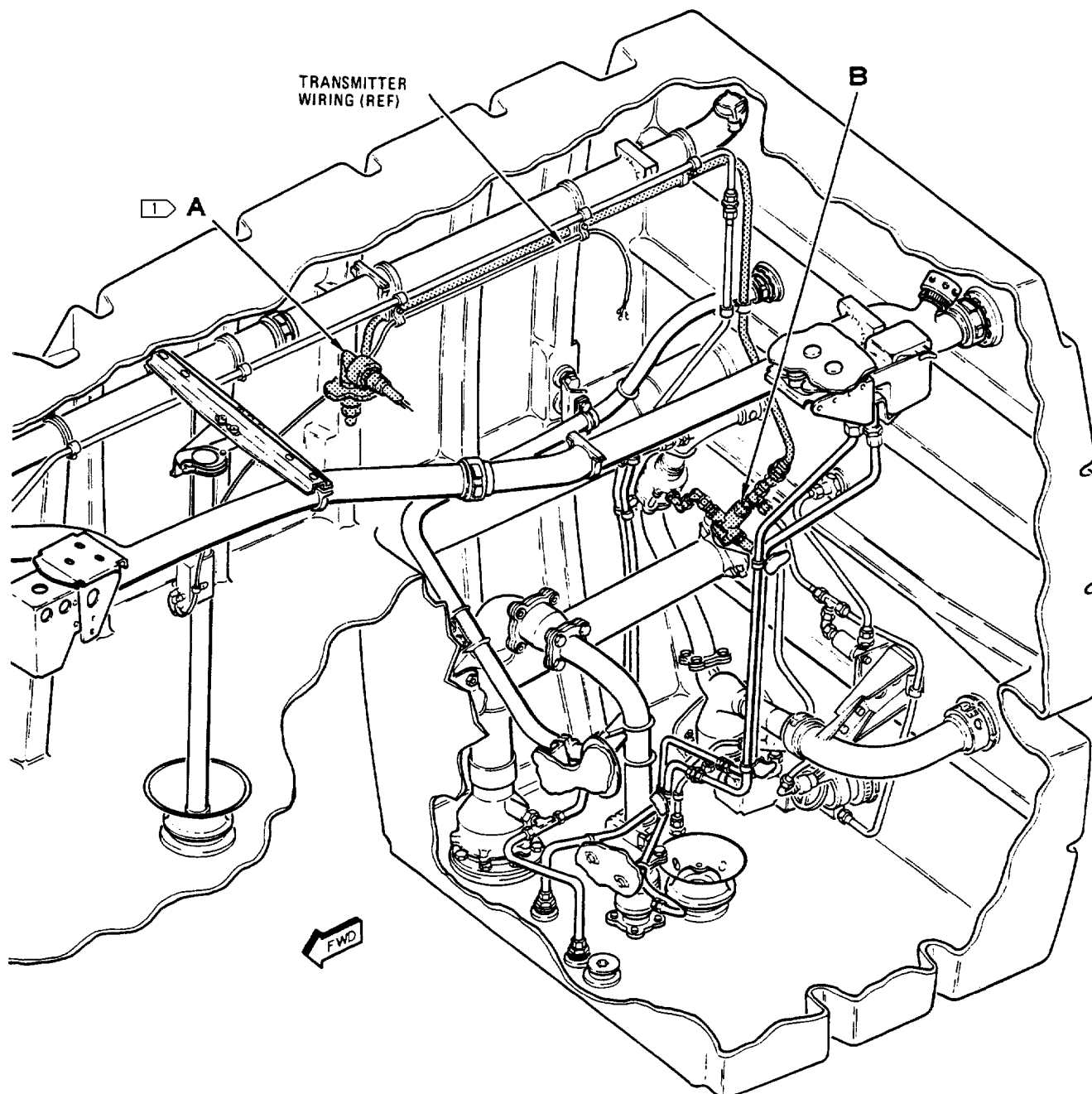


Figure 1. No. 1 Fuel Tank Transfer Control Valve (5L-F160) (Sheet 1)

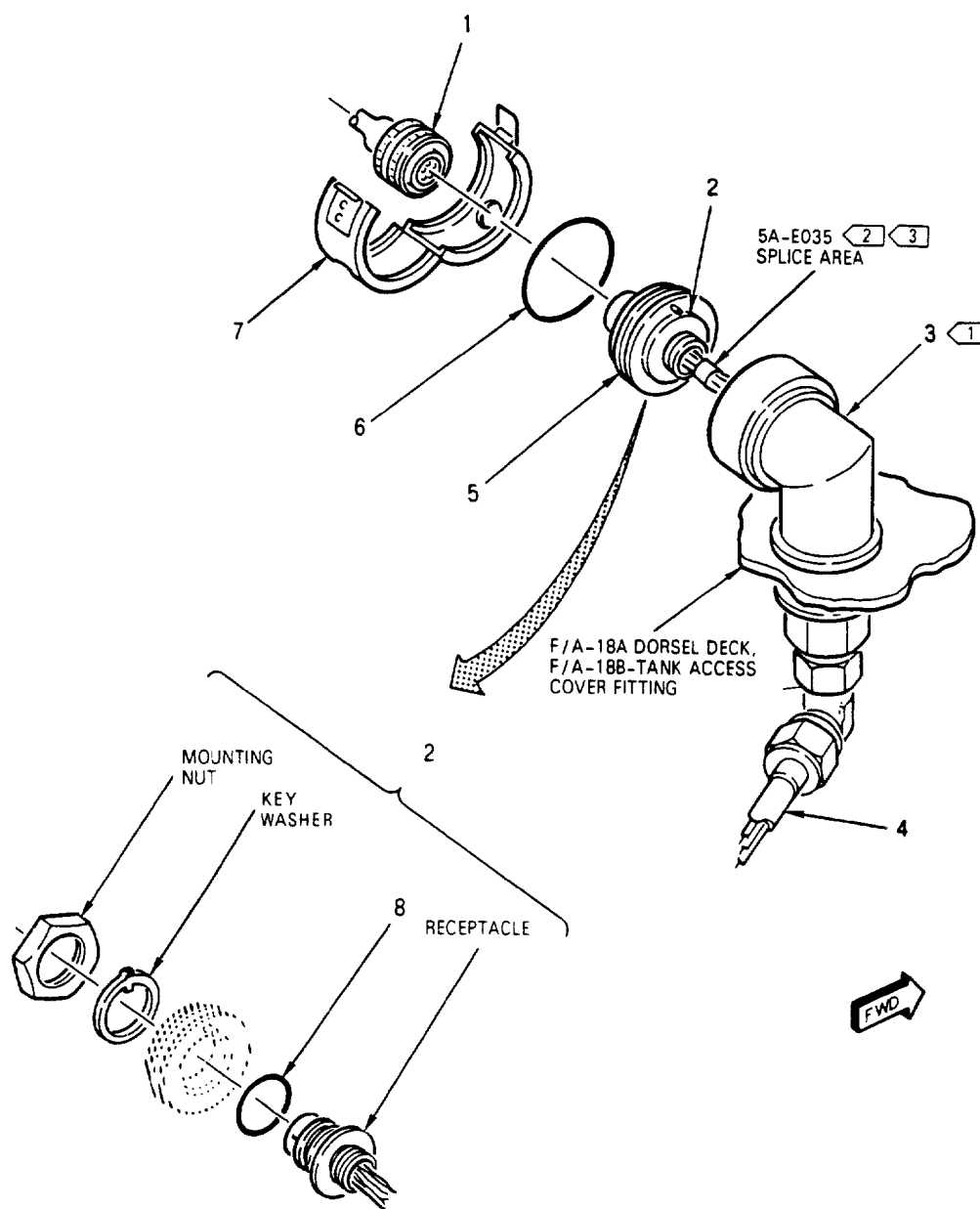
**A**F/A-18A SHOWN
F/A-18B SIMILAR

Figure 1. No. 1 Fuel Tank Transfer Control Valve (5L-F160) (Sheet 2)

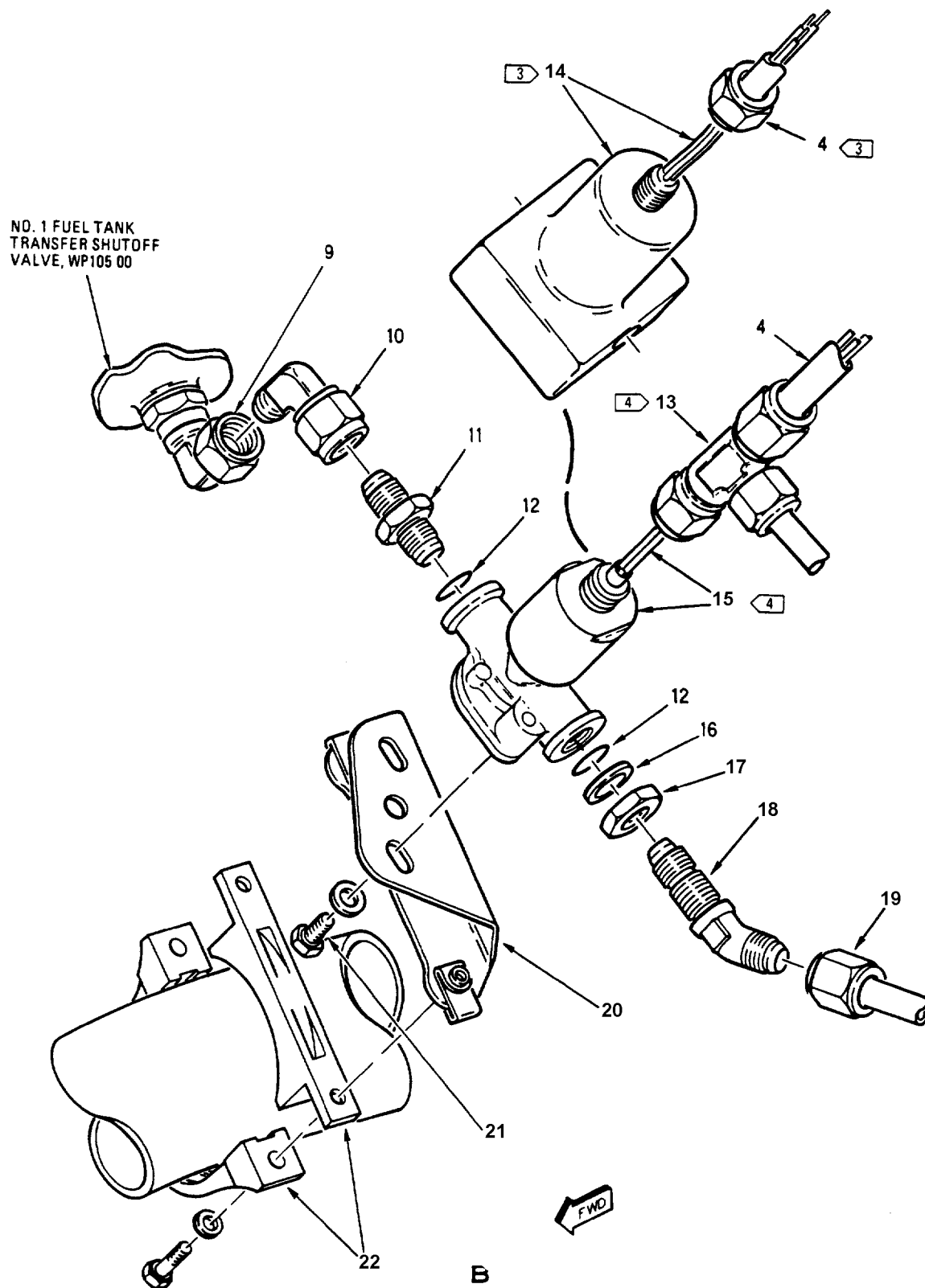
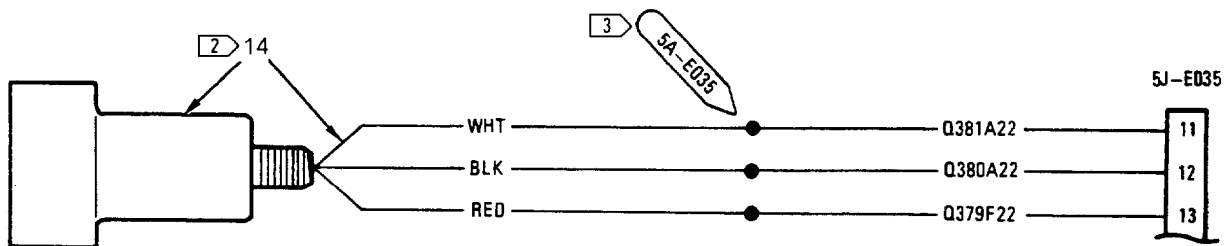
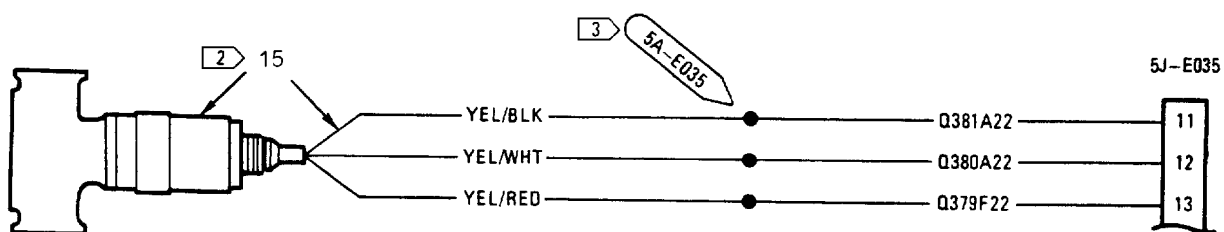


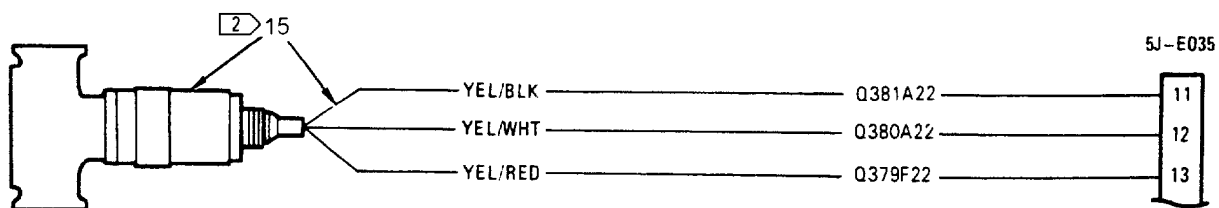
Figure 1. No. 1 Fuel Tank Transfer Control Valve (5L-F160) (Sheet 3)



WIRE ASSEMBLY FOR V4700-71 VALVE - 161520 THRU 161761 BEFORE F18 AFC 39



WIRE ASSEMBLY FOR 517500-101 VALVE - 161520 THRU 161761 BEFORE F18 AFC 39



WIRE ASSEMBLY FOR 517500-101 VALVE - 161934 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39

C

Figure 1. No. 1 Fuel Tank Transfer Control Valve (5L-F160) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK TRANSFER CONTROL									
		VALVE (5L-F160)									
1	MS27467T11B35S	.	CONNECTOR. PLUG (5P-E035)						1		PAOZZ
2	74A770173-9AAA	.	CONNECTOR, RECEPTACLE, ELECTRICAL -						1	G	XBOOO
			NO. 1 FUEL TANK (76301) (5A-J035)								
			(INCLUDES MOUNTING NUT, KEY								
			WASHER, AND PACKING) (FOR REPAIR								
			SEE A1-F18AC-WRM-000)								
	10-599302-35P	.	CONNECTOR, RECEPTACLE (77820)						1	D	PAOZZ
			(MCDONNELL SPEC								
			5M1934-11-35P) (5A-J035)								
3	74A580703-1003	.	ELBOW, ELECTRICAL - TANK NO. 1,						1		XBOZZ
			90° (76301) (SUPERSEDES								
			74A580703-1001)								
4	74A582099-1003	.	TUBE ASSEMBLY, METAL - CONDUIT,						1	A	MGOZZ
			FUEL, Y380-48 (76301)								
	74A582100-1001	.	TUBE ASSY, METAL - CONDUIT (76301)						1	E	MGOZZ
	74A582199-1003	.	TUBE ASSEMBLY, METAL - CONDUIT,						1	B	MGOZZ
			FUEL, Y380.48 (76301)								
	74A582200-1001	.	TUBE ASSY, METAL - CONDUIT (76301)						1	F	MGOZZ
5	74A580704-1001	.	RECEPTACLE, ELECTRICAL CONNECTOR -						1		XBOZZ
			TK1/WING (76301) (5J-E035)								
6	MS29513-222	.	PACKING						1		PAOZZ
7	W904K24DE	.	COUPLING, CLAMP, GROOVED (HALF)						1		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-24D-1)								
	14C12-24A	.	COUPLING, CLAMP, GROOVED (HALF)						1		PAOZZ
			(24984) (MCDONNELL SPEC								
			7M765-24D-1)								
	W904F24DE	.	COUPLING, CLAMP, GROOVED (HALF)						1	*	PAOZZ
			(79326) (MCDONNELL SPEC								
			7M550-24D-1)								
8	M25988-2-116	.	PACKING						1		PAOZZ
9	ST7M263V6	.	ELBOW (76301)						1		PAOZZ
10	7M148V6	.	ELBOW (76301)						1		PAOZZ
11	7M637BD-6D	.	NIPPLE (76301)						1		PAOZZ
12	MS29512-06	.	PACKING						2		PAOZZ
13	7M151V6	.	TEE (76301)						1	D	PAOZZ
14	V4700-71	.	VALVE, SOLENOID - TRANSFER						1	G	PAOZZ
			SHUTOFF, NO. 1 FUEL TANK								
			(NO. 1 FUEL TANK TRANSFER								
			CONTROL VALVE) (96487)								
			(MCDONNELL SPEC 74J588025-101)								
			(5L-F160) (FOR ASSEMBLY SEE								
			74A770174, A1-F18AC-WRM-000,								
			WP701 74) (USE UNTIL EXHAUSTED)								
15	517500-101	.	VALVE, SOLENOID - TRANSFER						1		PAOZZ.
			SHUTOFF, NO. 1 FUEL TANK								
			(NO. 1 FUEL TANK TRANSFER								
			CONTROL VALVE) (96124)								
			(MCDONNELL SPEC 74-580070-101)								
			(5L-F160) (FOR ASSEMBLY SEE								
			74A770174, A1-F18AC-WRM-000,								
			WP701 74) (REPLACES V4700-71)								
16	MS28773-06	.	RETAINER						1		PAOZZ
17	AN6289D6	.	NUT						1		PAOZZ
18	7M6378Y-6D	.	ELBOW (76301)						1		PAOZZ
19	74A582169-1701	.	TUBE ASSEMBLY METAL - MOTIVE						1	H	MGOZZ
			FLOW, Y380.476 (76301)								
	74A582169-1005	.	SEE ABOVE						1	C	MGOZZ

Figure 1. No. 1 Fuel Tank Transfer Control Valve (5L-F160) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
20	74A581031-2003	.						BRACKET - VALVE SOLENOID S/O, TANK NO. 1 (76301)	1		MGOZZ
21	NAS674V1	.						BOLT	2		PAOZZ
	AN960JD416L	.						WASHER (USE WITH INDEX 21)	2		PAOZZ
22	NAS1787A40G	.						CLAMP	1		PAOZZ
	NAS673V8	.						BOLT (AP)	2		PAOZZ
	AN960JD10L	.						WASHER (AP)	2		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161520 THRU 161761 BEFORE F/A-18 AFC 39	F/A-18A
B	161704 THRU 161746 BEFORE F/A-18 AFC 39	F/A-18B
C	161966 & UP; ALSO 161353 THRU 161519 161520 THRU 161965 AFTER F/A-18 AFC 53	F/A-18A/B
D	161924 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39	F/A-18A/B
E	161925 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39	F/A-18A
F	161924 & UP ALSO 161704 THRU 161746 AFTER F/A-18 AFC 39	F/A-18B
G	161520 THRU 161761 BEFORE F/A-18 AFC 39	F/A-18A/B
H	161520 THRU 161965 BEFORE F/A-18 AFC 53	F/A-18A/B

Figure 1. No. 1 Fuel Tank Transfer Control Valve (5L-F160) (Sheet 6)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 1 FUEL TANK FUEL LOW LEVEL SHUTOFF VALVE
(5L-E171)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161924 AND UP; ALSO
161353 THRU 161761 AFTER F/A-18 AFC 39
AND F/A 18 IAFC 115

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover - F/A-18A	WP003 00
No. 1 Fuel Tank Access Cover - F/A-18B	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00

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Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA F/A-00072C1)	15 Oct 86	-
F/A-18 IAFC 115	-	Y383 Bulkhead Fatigue Improvements (ECP MDA-F/A-18-00266)	1 Oct 88	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
--------------	---------------------------------

Torque Wrench,
0 to 150 Inch-Pounds

-

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29512-06
Packing	MS29513-222
Packing	M25988/2-116
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect connector (1, figure 1, detail A).
- c. Remove coupling (7), connector (2) with receptacle (5).
- d. Disconnect receptacle wires YEL/BLK at pin 7, YEL/WHT at pin 4 and YEL/RED at pin 3 (detail C).
- e. Disconnect elbow (17, detail B) at valve (16).
- f. Disconnect tubes (9 and 15).
- g. At valve (16), carefully pull wire through elbow (17) one wire at a time.
- h. Remove valve (16) and attaching parts.
- i. Remove nipples (10) and packings (14) from valve (16).

2. INSTALLATION.

- a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

- b. Lubricate new packings with petrolatum.

- c. Install packings (14, figure 1, detail B) on nipples (10) and install nipples (10) in valve (16).

- d. Install valve (16) on bracket (11) and attaching parts.

- e. Connect tubes (9 and 15) to nipples (10).



To prevent damage to wire, use caution when wires are unwrapped from around valve and pushed through elbow and tubes.

NOTE

If wire cannot be pushed through tubing, tubing may be disconnected to ease installation.

- f. At valve (16), carefully push wire through elbow (17) and tubes one wire at a time.

- g. Connect elbow (17) to valve (16) and torque nut 70 to 90 inch-pounds. (QA)

- h. Connect wires to connector (2) as follows:

YEL/BLK to pin 7

YEL/WHT to pin 4

YEL/RED to pin 3

- i. Install packing (6), receptacle (5), and coupling (7).

- j. Make sure mounting nut is safetied with lock-wire. (QA)

- k. Connect connector (1).

- l. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

- m. Install no. 1 tank access cover (WP003 00 or WP004 00).

- n. Do Internal Fuel Tank Transfer and Engine Fuel Supply System Test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

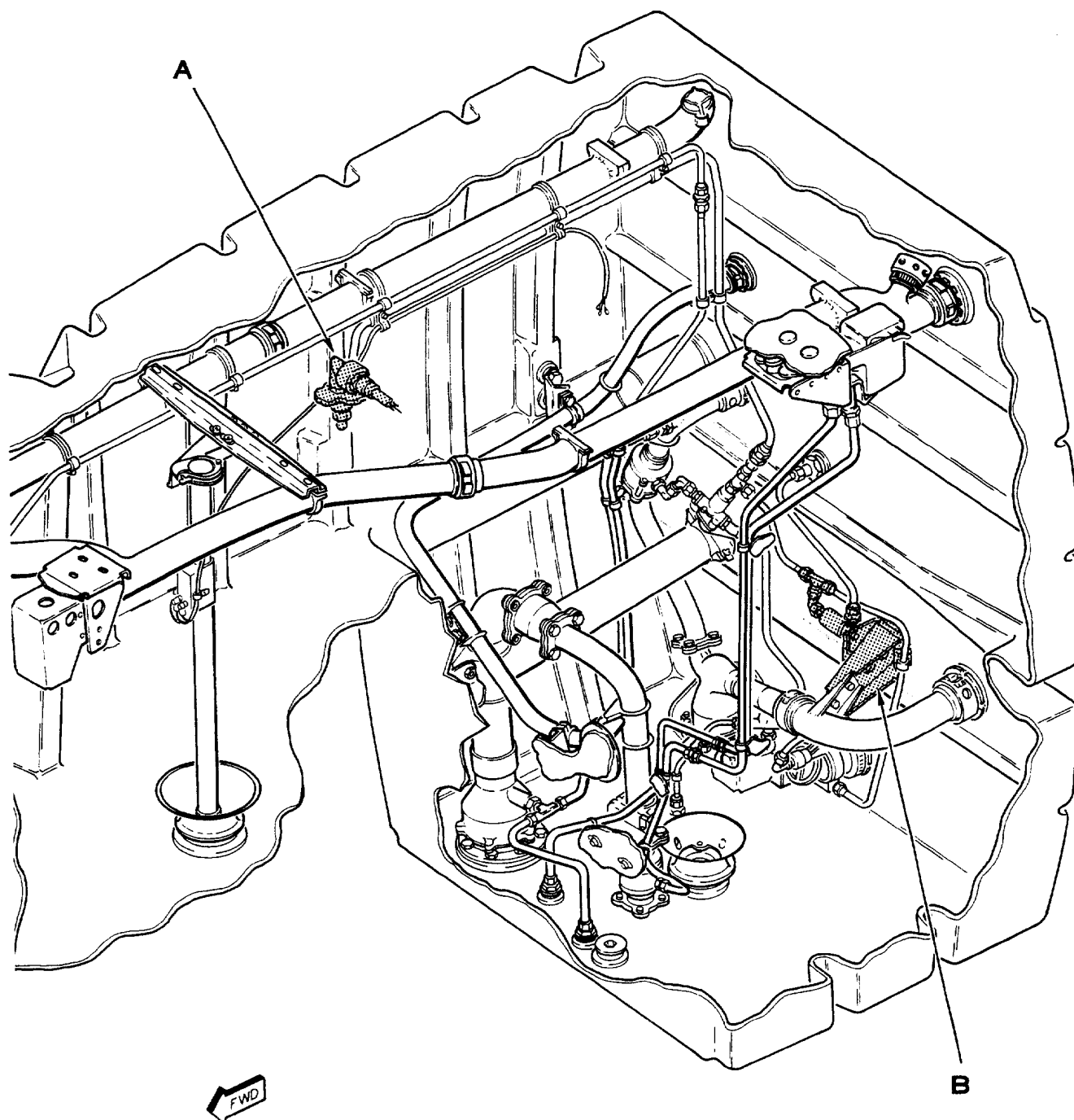
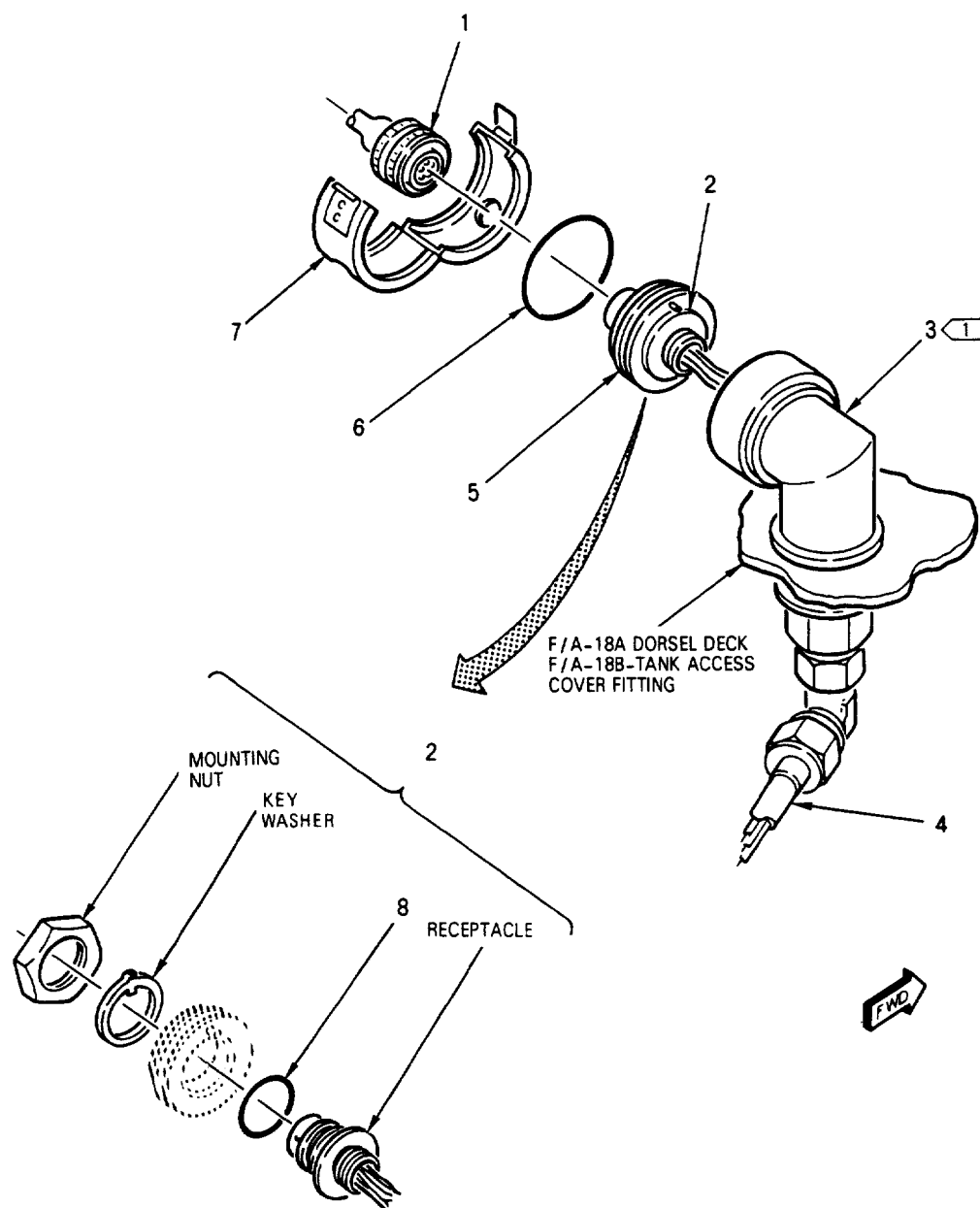


Figure 1. No. 1 Fuel Tank Fuel Low Level Shutoff Valve (5L-E171) (Sheet 1)



A

F/A-18A SHOWN
F/A-18B SIMILAR

Figure 1. No. 1 Fuel Tank Fuel Low Level Shutoff Valve (5L-E171) (Sheet 2)

LEGEND

1 F/A-18A SHOWN, F/A-18B SIMILAR.

2 FOR ASSEMBLY SEE 74A770175,
A1-F18AC-WRM-000, WP701 75.

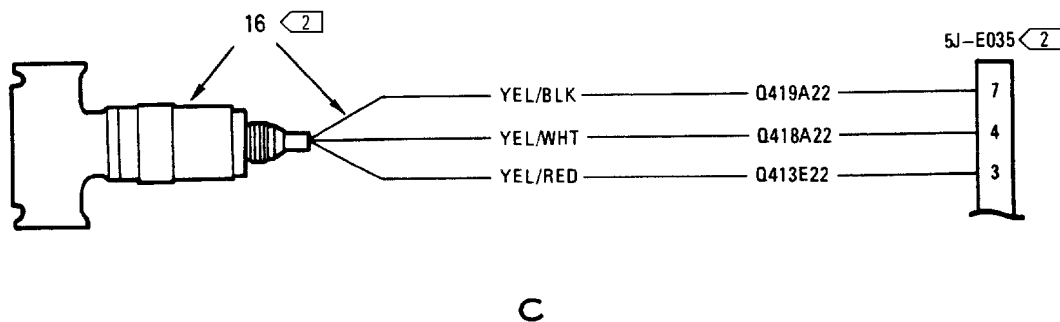
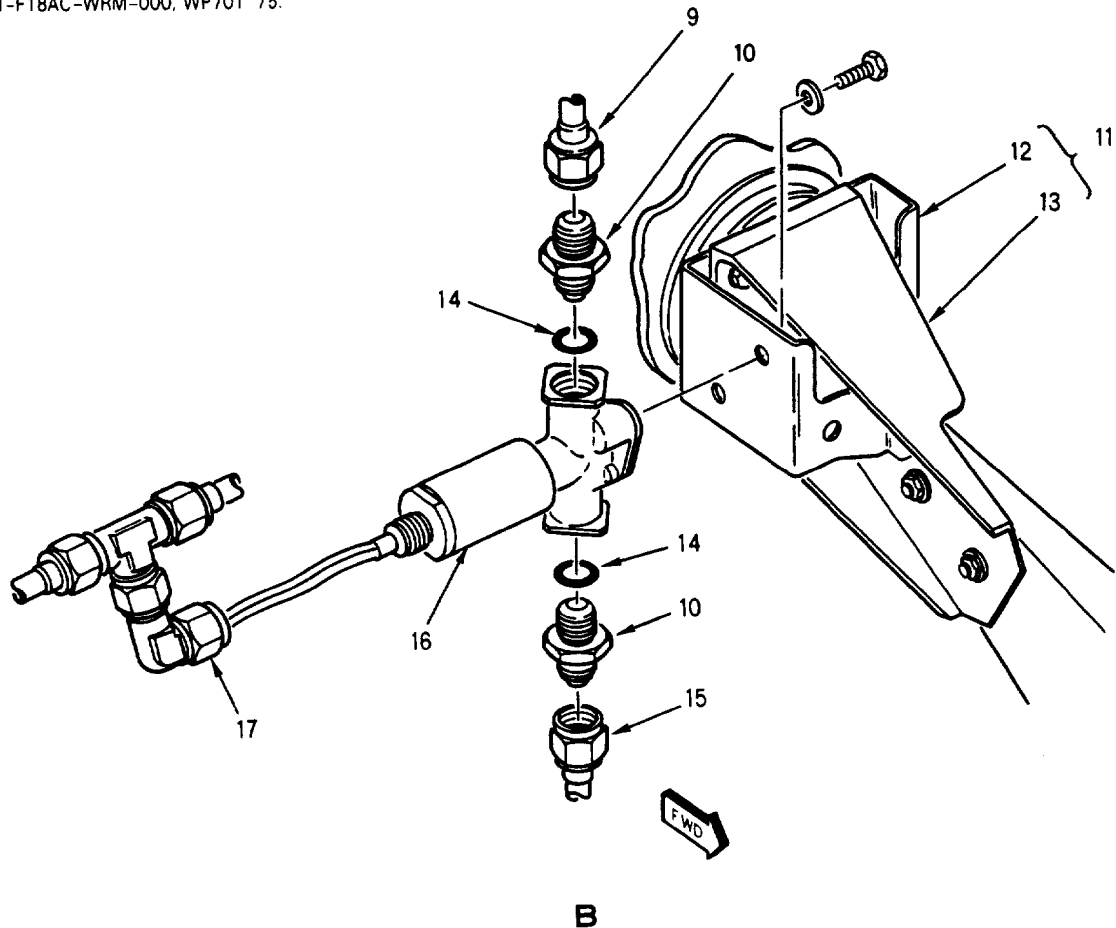


Figure 1. No. 1 Fuel Tank Fuel Low Level Shutoff Valve (5L-E171) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK FUEL LOW LEVEL									
		SHUTOFF VALVE (5L-E171)									
1	MS27467T11B35S	.							1		PAOZZ
2	10-599302-35P	.							1		PAOZZ
		(MCDONNELL SPEC 5M1934-11-35P) (5A-J035)									
3	74A580703-1003	.							1		XBOZZ
		ELBOW, ELECTRICAL - TANK NO. 1,									
		90° (76301) (SUPERSEDES 74A580703-1001)									
4	74A582100-1001	.							1	A	MGOZZ
	74A582200-1001	.							1	B	MGOZZ
5	74A580704-1001	.							1		XBOZZ
		RECEPTACLE, ELECTRICAL CONNECTOR -									
		TK1/WING (76301)									
6	MS29513-222	.							1		PAOZZ
7	W904K24DE	.							1		PAOZZ
		COUPLING, CLAMP, GROOVED									
		(HALF) (79326) (MCDONNELL SPEC 7M765-24D-1)									
	14C12-24A	.							1		PAOZZ
		COUPLING, CLAMP, GROOVED									
		(HALF) (24984) (MCDONNELL SPEC 7M765-24D-1)									
	W904F24DE	.							1	*	PAOZZ
		COUPLING, CLAMP, GROOVED									
		(HALF) (79326) (MCDONNELL SPEC 7M550-24D-1)									
8	M25988/2-116	.							1		PAOZZ
9	74A582056-1001	.							1		MGOZZ
10	7M637BD-6D	.							2		PAOZZ
11	74A582071-1005	.							1	D	XBOOO
		BRACKET, EJECTOR ELBOW,									
		FUEL TANK NO. 1 (76301)									
	74A582072-1001	.							1	E	XBOOO
		BRACKET - EJECTOR ELBOW,									
		FUEL, TANK NO. 1 (76301)									
12	74A582088-2007	.							1	C	XBOZZ
	MS20426AD4 #	.							4		-
13	74A582071-2003	.							1	D	XBOOO
		BRACKET EJECTOR, ELBOW,									
		FUEL, TANK NO. 1 (76301)									
	74A582072-2003	.							1	E	XBOOO
		SUPPORT - EJECTOR ELBOW,									
		FUEL, TANK NO. 1 (76301)									
14	MS29512-06	.							2		PAOZZ
15	74A582055-1001	.							1		MGOZZ
16	517500-101	.							1		PAOZZ
		VALVE, SOLENOID - LOW LEVEL									
		NO. 1 FUEL TANK (NO. 1 FUEL TANK FUEL LOW LEVEL SHUTOFF VALVE) (81873) (MCDONNELL SPEC 74-580070-101) (5L-E171) (FOR ASSEMBLY SEE 74A770175, A1-F18AC-WRM-000, WP701 75)									
	NAS674V1	.							2		PAOZZ
	AN960JD416L	.							2		PAOZZ
17	7M148V6	.							1		PAOZZ
		ELBOW									

LENGTH/SIZE TO BE DETERMINED AT INSTALLATION.

* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

Figure 1. No. 1 Fuel Tank Fuel Low Level Shutoff Valve (5L-E171) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161925 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39	F/A-18A
B	161924 & UP; ALSO 161354 THRU 161746 AFTER F/A-18 AFC 39	F/A-18B
C	161924 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39 OR F/A-18 IAFC 115	F/A-18A/B
D	161924 THRU 161987; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39; BEFORE IAFC 115	F/A-18A/B
E	162394 & UP; ALSO 161353 THRU 161987 AFTER F/A-18 IAFC 115	F/A-18A/B

Figure 1. No. 1 Fuel Tank Fuel Low Level Shutoff Valve (5L-E171) (Sheet 5)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****NO. 1 FUEL TANK TRANSFER JET EJECTOR
(5BAP536)****NO. 1 FUEL TANK TRANSFER JET EJECTOR SUPPORT****INTERNAL FUEL TRANSFER SYSTEM****Reference Material**

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover - F/A-18A	WP003 00
No. 1 Fuel Tank Access Cover - F/A-18B	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Couplings Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000
Structural Hardware	NAVAIR 01-1A-8

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 IAFC 024	4 Mar 83	Fuel System, Motive Flow System Couplings, Replacement of (ECP MDA F/A-18 00143)	1 Mar 83	-
F/A-18 IAFC 115	-	Y383 Bulkhead Fatigue Improvements (ECP MDA-F/A-18-00266)	1 Oct 88	-

1. NO. 1 FUEL TANK TRANSFER JET EJECTOR.

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 120 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29513-222
Packing (2)	MS29513-226
Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. REMOVAL.

a. Do general preparation for removal (WP013 00).

b. On 163119 AND UP, remove link (17, figure 1, Configuration X), bolts (15, 18, 19 and 22) and attaching parts.

c. Remove coupling (4, detail A) and packings (3).

d. On 161353 THRU 163118, remove bolts (11) and attaching parts.

e. Remove bolt (12) and attaching parts.

f. Loosen four bolts and two nuts identified in detail A.

g. Loosen or remove bolts (1) and move tube (10) away from ejector (6).

h. Remove nuts and washers (7), ejector (6) and attaching parts.

3. INSTALLATION.

a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate packings (3 and 9, figure 1, detail A) with petrolatum.

c. Prepare mating surfaces of transfer jet ejector support, tube (10) and ejector (6) for electrical bond (A1-F18AC-LMM-000).

d. Install packings (3 and 9).

e. Install ejector (6), and nuts and washers (7).

f. Align tube (5) with ejector (6) and install packings (3) and coupling (4).

g. On 161353 THRU 163118, before F/A-18 IAFC 115 install tube (10, detail A) with bolts (11) and attaching parts.

h. On 163119 AND UP, also 161353 thru 163118 after F/A-18 IAFC 115, install tube (10), packing (9) with bolts (18, Configuration X), and plate (16) with bolts (19) and attaching parts.

i. Install bolt (12, Detail A) through clamps (13 and 14) and install attaching parts.

j. Install and/or tighten bolts (1).

k. Tighten four bolts and two nuts identified in detail A.

l. On 163119 and up, also 161353 thru 163118 after F/A-18 IAFC 115 (Configuration X) do substeps below:

(1) Position link (17) and insert bolt (15) through plate (16) and link (17). Install washer and nut finger tight.

(2) Check alignment of link (17) with eyebolt (20).

NOTE

A maximum of six washers (21) may be used for shimming between support and eyebolt (20).

(3) If hole in link (17) and hole in eyebolt (20) do not align remove eyebolt and add or remove washers (21) as required until alignment is acquired. Then install bolt (22) and attaching parts.

(4) Install washer and nut on eyebolt (20). Torque nut 50 to 60 inch pounds. (QA)

(5) Tighten bolt (15).

m. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

n. Install access cover (WP003 00 or WP004 00)

o. Connect utility and emergency battery connectors (WP013 00).

p. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

4. INSPECTION. - 2760102-109 and 2760102-107

Support Equipment Required

None

Materials Required

None

a. Remove ejector (6, figure 1) per Removal, this WP.

b. Inspect seat assembly (1, figure 3) for conditions listed below:

(1) flapper assembly seals against seat

(2) flapper assembly not damaged

(3) seat assembly not damaged

5. REPAIR. - 2760102-109 and 2760102-107

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
MS29513-041	Packing
VV-P-236 (CAGE 81348)	Petrolatum, Technical

NOTE

Repair of 2760102-109 and 2760102-107 ejector is limited to replacement of parts.

6. Disassembly.

a. If seat assembly (1, figure 3) is damaged, remove per substeps below:

(1) remove screws (6)

(2) remove retainer (5), retaining ring (4), and inlet assembly (3) with seat assembly (1)

b. Remove packing (2) from seat assembly (1).

7. Assembly.

Petrolatum, Technical

2

a. Lubricate packing (2, figure 3) with petrolatum.

b. Install packing (2) onto seat assembly (1).

c. Install seat assembly (1), inlet assembly (3), retaining ring (4), and retainer (5) with screws (6).

d. Install ejector (6, figure 1) per Installation, this WP.

8. NO. 1 FUEL TANK TRANSFER JET EJECTOR SUPPORT.**Support Equipment Required**

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29513-333
Petrolatum, Technical	VV-P-236 (CAGE 81348)

9. REMOVAL.

a. Remove no. 1 fuel tank transfer jet ejector per paragraph 2.

b. Remove support (3 or 9, figure 2) and attaching parts.

c. Remove packing (1).

d. Remove bolt (2) and washer and pilot valve support.

10. INSTALLATION.

Petrolatum, Technical

2

a. Lubricate packing (1, figure 2) with petrolatum.

b. Prepare mating surfaces of support (3 or 9), pilot valve support and bracket support for electrical bond (A1-F18AC-LMM-000).

c. Install pilot valve support with bolts and washers (2).

d. Install packing (1).

e. Install support (3 or 9) and attaching parts.

f. Install no. 1 fuel tank transfer jet ejector per Installation, this WP.

11. INSPECTION.**Support Equipment Required**

None

Materials Required

None

a. Inspect support (3 or 9, figure 2) for conditions listed below:

- (1) Cracks
- (2) Corrosion
- (3) Sharp edges that could damage tank
- (4) Stripped or cross threaded plate nuts
- (5) Stripped bolts

12. REPAIR.

Support Equipment Required

None

Materials Required

None

13. Disassembly.

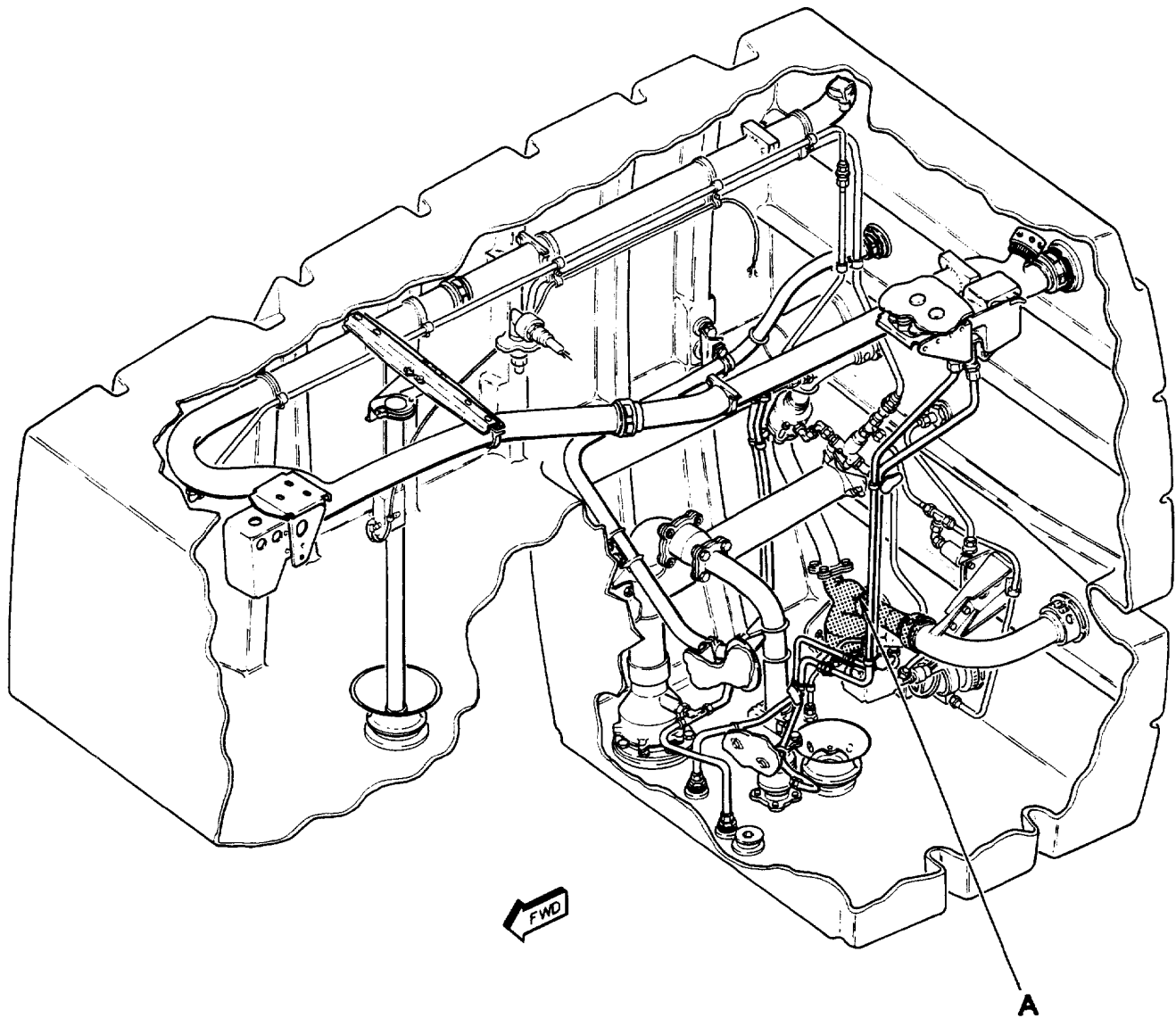
- a. If damaged, remove support (3 or 9, figure 2) per Removal, this WP.
- b. If damaged, remove nuts (5, figure 2) (NAVAIR 01-1A-8).
- c. If damaged, remove bolts (7).
- d. If damaged, remove retainers (6, 8, or 11) (NAVAIR 01-1A-8).

14. Assembly.

- a. Install nuts (5, figure 2) or retainers (6, 8, or 11) (NAVAIR 01-1A-8).
- b. Install bolts (7).
- c. Install support (3 or 9) per Installation, this WP.

15. ILLUSTRATED PARTS BREAKDOWN.

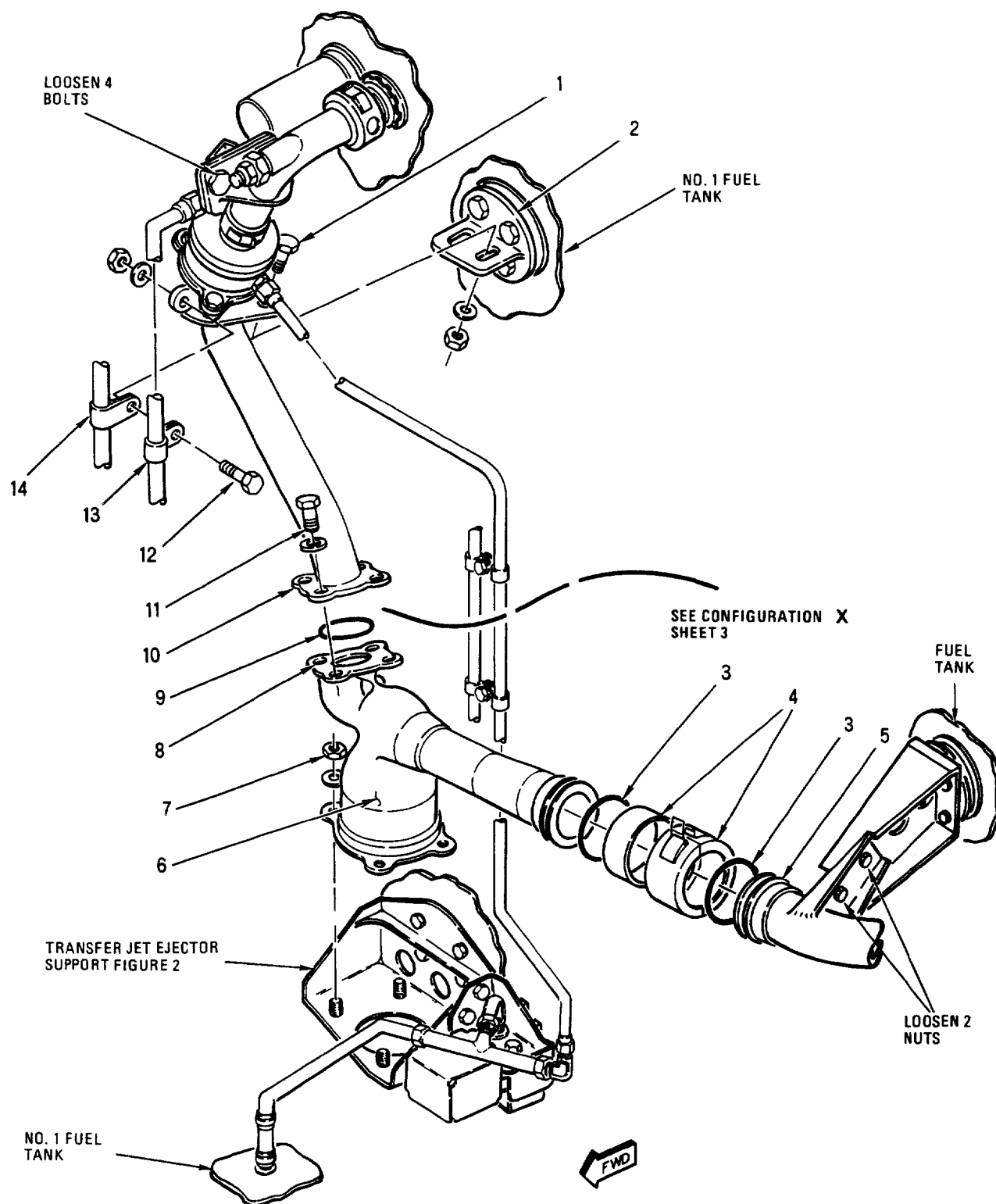
16. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



LEGEND

F/A-18A SHOWN, F/A-18B SIMILAR

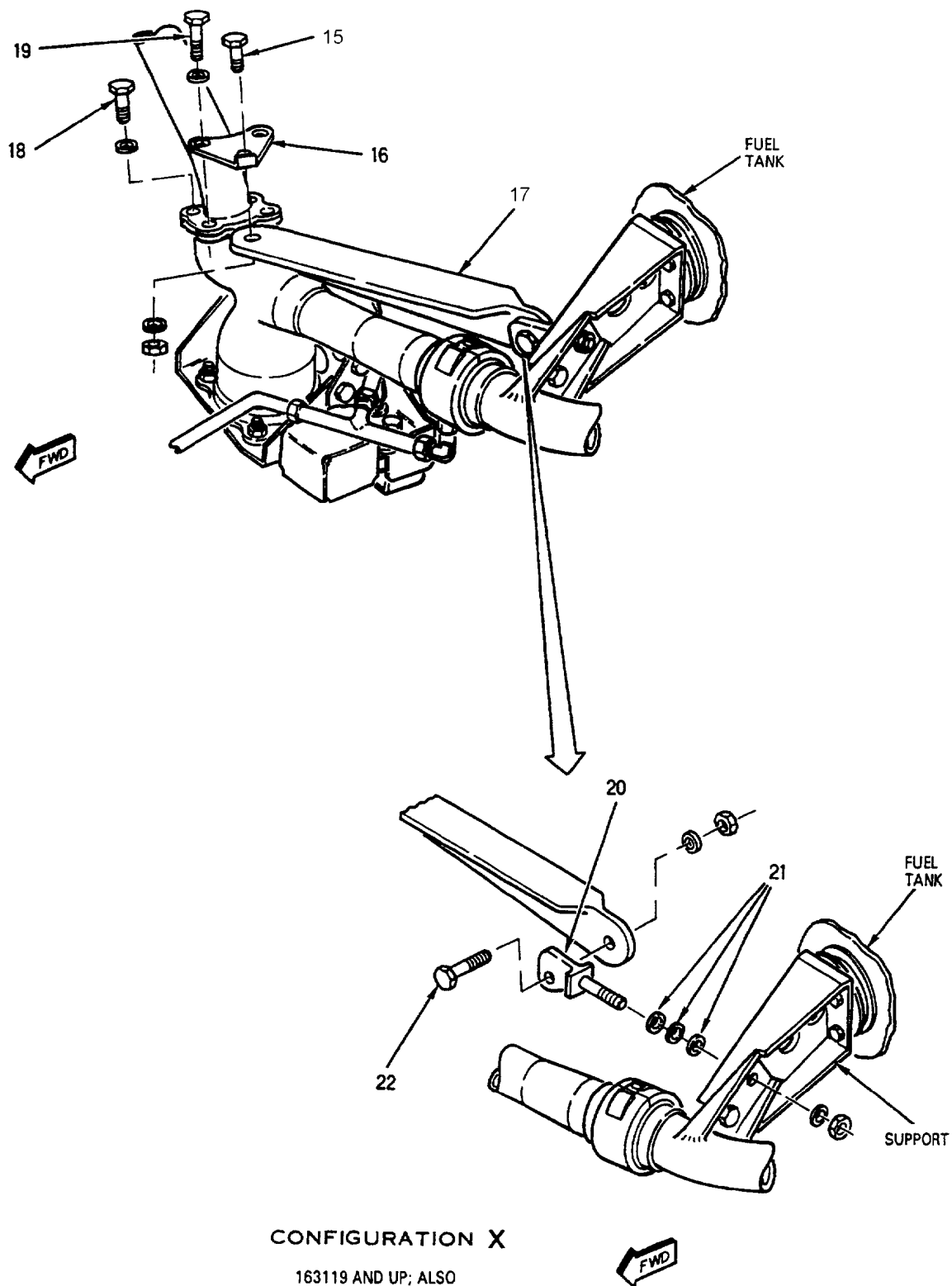
Figure 1. No. 1 Fuel Tank Transfer Jet Ejector (5BAP536) (Sheet 1)



A

Figure 1. No. 1 Fuel Tank Transfer Jet Ejector (5BAP536) (Sheet 2)

10600102



10600103

Figure 1. No. 1 Fuel Tank Transfer Jet Ejector (5BAP536) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		NO. 1 FUEL TANK TRANSFER JET			
		EJECTOR (5BAP536)			
1	NAS673V3	. BOLT	2		PAOZZ
	AN960JD416	. WASHER (USE WITH INDEX 1)	2		PAOZZ
	NAS1291C4M	. NUT (USE WITH INDEX 1)	2		PAOZZ
2	74A582079-2003	. SUPPORT - TUBE ASSY, MOTIVE	1		XBOZZ
		FLOW, TANK NO. 1, LOWER (76301)			
3	MS29513-226	. PACKING	2		PAOZZ
4	W901K32DE	. COUPLING, CLAMP, GROOVED (79326).	1	*	PAOZZ
		(MCDONNELL SPEC 7M765-32D)			
		(INCLUDES SLEEVE)			
	14J12-32A	. COUPLING, CLAMP, GROOVED (24984).	1	*	PAOZZ
		(MCDONNELL SPEC 7M765-32D)			
		(INCLUDES SLEEVE)			
5	74A582012-1007	. TUBE ASSEMBLY - ELBOW, TRANSFER,	1	C	PAOZZ
		TANK NO. 1 (76301) (REPLACES			
		74A582012-1003 AND 74A582012-1005)			
	74A582012-1005	. SEE ABOVE.	1	D	PAOZZ
	74A582012-1003	. SEE ABOVE.	1	D*	PAOZZ
6	2760102-109	. EJECTOR, JET - FUSELAGE FUEL TRANSFER	1		PAOOO
		(NO. 1 FUEL TANK TRANSFER JET			
		EJECTOR) (92003) (MCDONNELL SPEC			
		74-580112-123) (SEE FIGURE 3 FOR REPAIR			
		OF 2760102-109 AND 2760102-107 (5BAP536)			
	2760102-107	. SEE ABOVE.	1	*	PAOOO
	2760102-103	. SEE ABOVE (MCDONNELL SPEC	1	*	PAOZZ
		74-580112-117) (5BAP536)			
7	NAS1291C4M	. NUT (AP)	4		PAOZZ
	AN960JD416	. WASHER (USE WITH INDEX 7)	4		PAOZZ
8	MS21209F4-10	. INSERT	4		PAOZZ
9	MS29513-222	. PACKING	1		PAOZZ
10	74A582018-1001	. TUBE ASSEMBLY - MOTIVE FLOW,	1		PAOZZ
		TANK NO. 1, LOWER (76301)			
11	NAS674V5	. BOLT	4	A	PAOZZ
	AN960JD416	. WASHER (USE WITH INDEX 11)	4		PAOZZ
12	NAS673V6	. BOLT	1		PAOZZ
	AN960JD10L	. WASHER (USE WITH INDEX 12)	1		PAOZZ
	NAS1291C3M	. NUT (USE WITH INDEX 12)	1		PAOZZ
13	NMC-ST9M529-4	. CLAMP, LOOP (03296) (MCDONNELL.	1		PAOZZ
		SPEC ST9M529-4)			
14	NMC-ST9M529-6	. CLAMP, LOOP (03296) (MCDONNELL.	1		PAOZZ
		SPEC ST9M529-6)			
15	NAS675V4	. BOLT	1	B	PAOZZ
	AN960JD516	. WASHER (USE WITH INDEX 15)	1		PAOZZ
	NAS1291C5M	. NUT (USE WITH INDEX 15)	1		PAOZZ
16	74A582119-2003	. PLATE (76301).	1	B	XBOZZ
17	74A582119-2001	. LINK (76301)	1	B	XBOZZ
18	NAS674V5	. BOLT	2	B	PAOZZ
	AN960JD416	. WASHER (USE WITH INDEX 18)	2		PAOZZ
19	NAS674V7	. BOLT	2	B	PAOZZ
	AN960JD416	. WASHER (USE WITH INDEX 19)	2		PAOZZ
20	74A582120-2001	. EYEBOLT - TENSION LINK, TK 1	1	B	XBOZZ
		TRANSFER TUBE (76301)			
	AN960JD416	. WASHER (USE WITH INDEX 20)	1		PAOZZ
	NAS1291C4M	. NUT (USE WITH INDEX 20)	1		PAOZZ
21	AN960JD416	. WASHER	AR	B	PAOZZ
22	NAS675V4	. BOLT	1	B	PAOZZ
	AN960JD516	. WASHER (USE WITH INDEX 22)	1		PAOZZ
	NAS1291C5M	. NUT (USE WITH INDEX 22)	1		PAOZZ

Figure 1. No. 1 Fuel Tank Transfer Jet Ejector (5BAP536) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 163118 BEFORE F/A-18 IAFC 115	F/A-18A/B
B	163119 & UP, ALSO 161353 THRU 163118 AFTER F/A-18 IAFC 115	F/A-18A/B
C	161353 AND UP AFTER F/A-18 IAFC 115	F/A-18A/B
D	161353 AND UP BEFORE F/A-18 IAFC 115	F/A-18A/B

Figure 1. No. 1 Fuel Tank Transfer Jet Ejector (5BAP536) (Sheet 5)

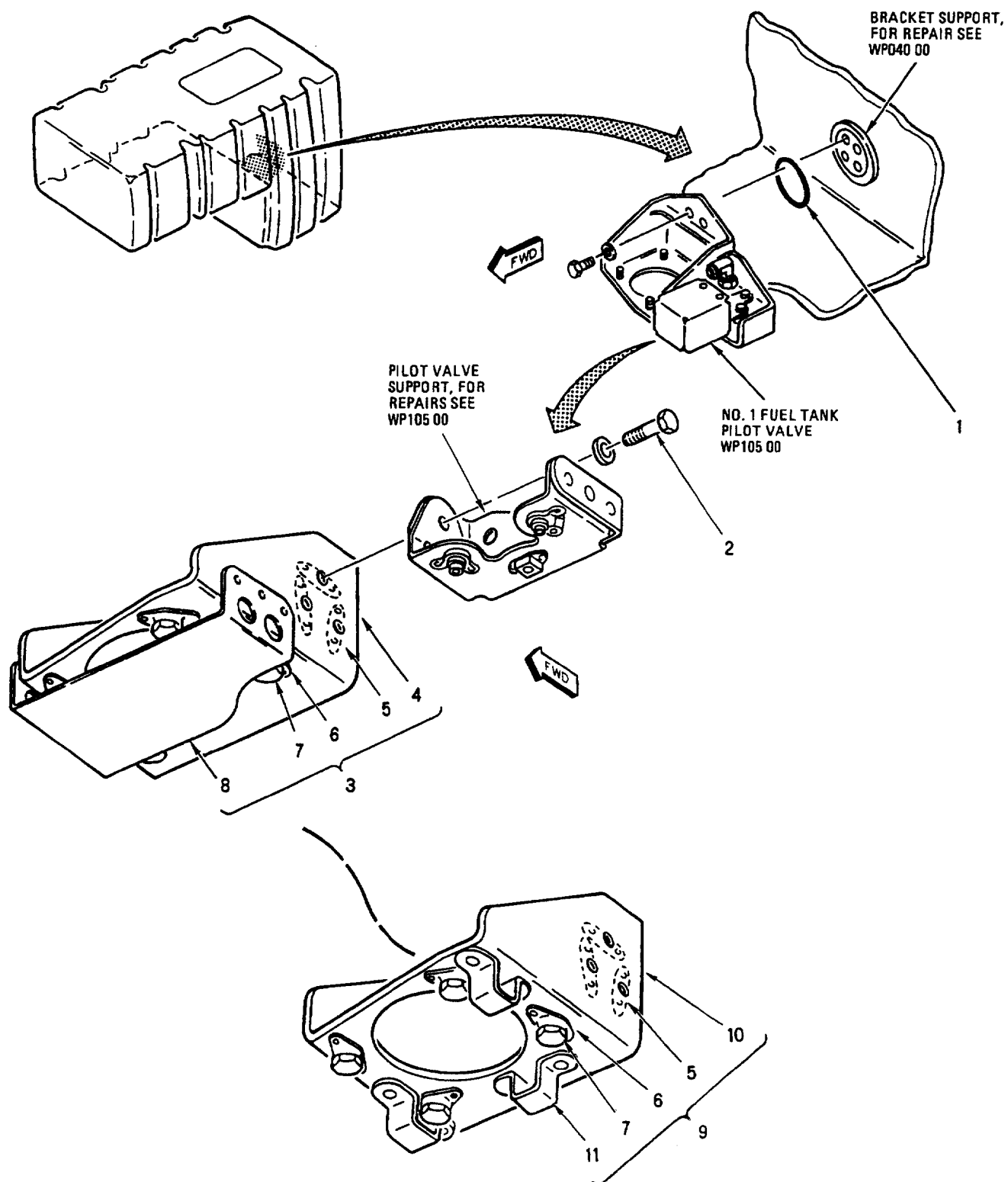


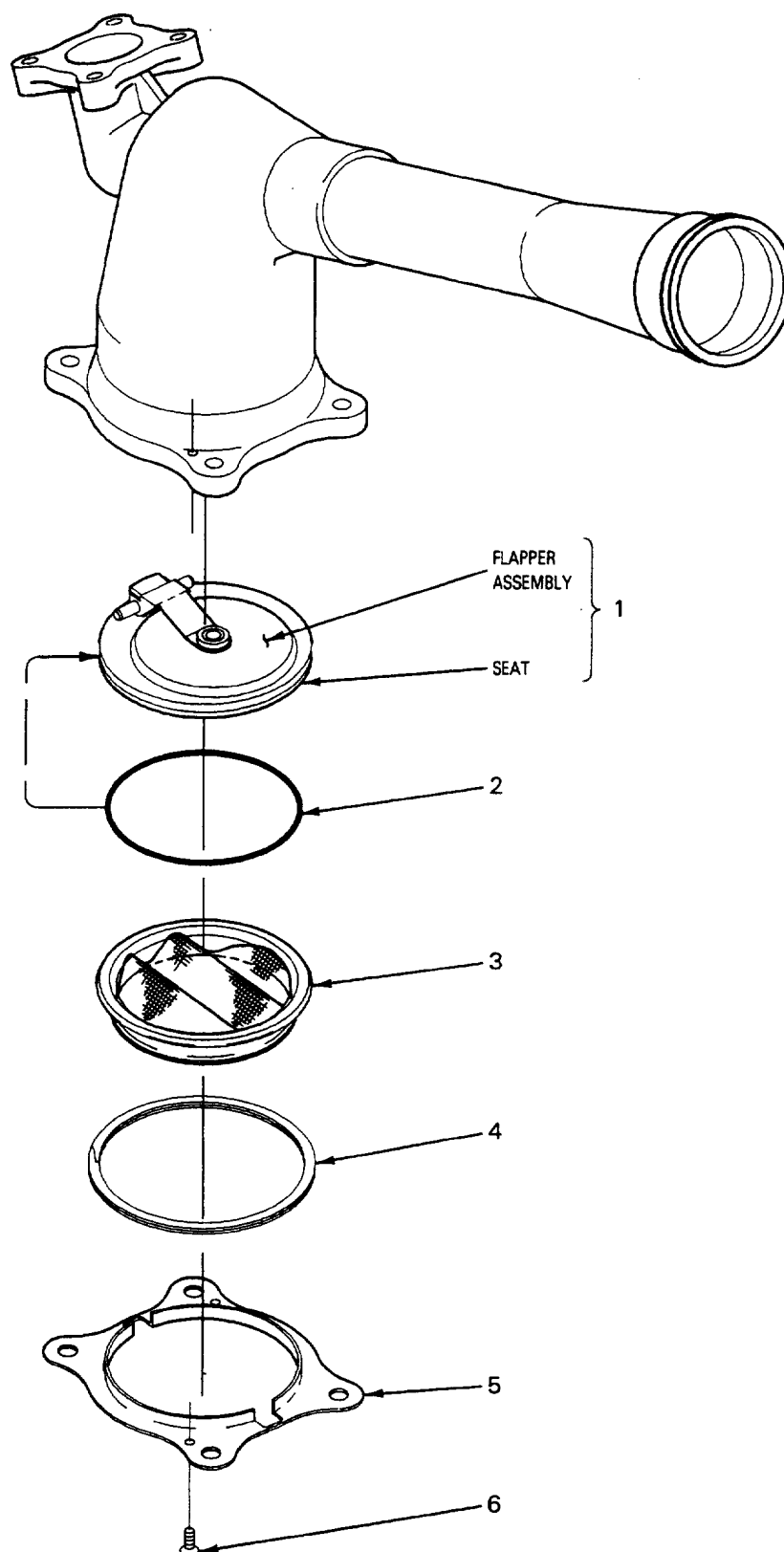
Figure 2. No. 1 Fuel Tank Transfer Jet Ejector Support (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK TRANSFER JET EJECTOR SUPPORT									
1	MS29513-333	.	PACKING						1		PAOZZ
2	NAS674V2	.	BOLT						3		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 2)						3		PAOZZ
3	74A582070-1013	.	SUPPORT - PUMP, FUEL EJECTOR,						1		XBOOO
			TANK NO. 1, Y379.5 (76301) (NO. 1 FUEL TANK TRANSFER JET EJECTOR SUPPORT) (REPLACES 74A582070-1007 OR 74A582070-1011)								
	74A582070-1011	.	SEE ABOVE (REPLACED BY 74A582070-1013, REPLACES 74A582070-1007)						1	B	XBOOO
	NAS674V3	.	BOLT (AP)						4		PAOZZ
	AN960JD416	.	WASHER (AP)						4		PAOZZ
4	74A582070-2011	.	SUPPORT (76301)						1	C	XAOZZ
	74A582070-2013	.	SUPPORT (76301)						1	D	XAOZZ
5	MS21060L4	.	NUT, PLATE						3		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
6	NS202004S048	.	RETAINER, NUT AND BOLT (80539) (MCDONNELL SPEC ST3M439-4M)						4		PAOZZ
7	NAS674V6	.	BOLT						4		PAOZZ
8	74A582088-2009	.	RETAINER (76301)						1	E	MDOZZ
	MS20470AD5 #	.	RIVET (AP)						6		-
9	74A582070-1007	.	SUPPORT - PUMP, FUEL EJECTOR,						1	A	XBOOO
			TANK NO. 1, Y379.5 (76301) (NO. 1 FUEL TANK TRANSFER JET EJECTOR SUPPORT) (REPLACED BY 74A582070-1011 OR 74A582070-1013)								
	NAS674V3	.	BOLT (AP)						4		PAOZZ
	AN960JD416	.	WASHER (AP)						4		PAOZZ
10	74A582070-2007	.	SUPPORT (76301)						1	A	XAOZZ
11	74A582088-2005	.	RETAINER (76301)						3	A	MGOZZ
	MS14218AD4-6 #	.	RIVET (AP)						2		PAOZZ

LENGTH/SIZE TO BE DETERMINED AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161353 THRU 161736	F/A-18A/B
B	161737 THRU 161761	F/A-18A/B
C	PN 74A582070-1011	
D	PN 74A582070-1013	
E	PN 74A582070-1011 & 74A582070-1013	

Figure 2. No. 1 Fuel Tank Transfer Jet Ejector Support (Sheet 2)



10600301

Figure 3. No. 1 Fuel Tank Transfer Jet Ejector Repair - 2760102-109 and 2760102-107 (5BAP536) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK TRANSFER JET									
		EJECTOR REPAIR - 2760102-109 AND									
		2760102-107 (5BAP536)									
1	2822026-102	.						SEAT ASSEMBLY (92003)	1		PAOZZ
2	MS29513-041	.						PACKING	1		PAOZZ
3	2823383-101	.						INLET ASSEMBLY (92003)	1		XAOZZ
4	M27426-3178D	.						RING, RETAINING 181349)	1		PAOZZ
5	2823384-101	.						RETAINER (92003)	1		XAOZZ
6	MS24693C26	.						SCREW	2		PAOZZ

Figure 3. No. 1 Fuel Tank Transfer Jet Ejector Repair - 2760102-109 and 2760102-107 (5BAP536) (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5VAP538)**

INTERNAL FUEL TRANSFER SYSTEM

Title	WP Number
No. 1 Fuel Tank Pressure Operated Interconnect Valve - 161353 THRU 161761 BEFORE F18 AFC 39	107 01
No. 1 Fuel Tank Pressure Operated Interconnect Valve - 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39	107 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5VAP538)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161353 THRU 161761 BEFORE F18 AFC 39

Reference Material

Fuel System	A1-F18AC-460-300
No. 1 Fuel Tank Access Cover F/A-18A	WP003 00
No. 1 Fuel Tank Access Cover F/A-18B	WP004 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 02
Line Maintenance Procedures	A1-F18AC-LMM-000

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Materials Required	1
No. 1 Fuel Tank Pressure Operated Interconnect Valve (5VAP538), Figure 1	3
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect tube (8, figure 1).
- c. Remove valve (3), nut assembly (2), and packing (1).
- d. Remove elbow (7), nut (6), retainer (5), and packing (4).

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing	MS29513-334
Petrolatum, Technical	VV-P-236 (CAGE 81348)

2. INSTALLATION.

- a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings (1 and 4, figure 1) with petrolatum.

c. Install nut (6), retainer (5), packing (4), and elbow (7).

d. Prepare mating surfaces of valve (3) for electrical bond (A1-F18AC-LMM-000).

e. Install packing (1), nut assembly (2), and valve (3). Tighten nut assembly (2) handtight.

f. Connect tube (8) to elbow (7).

g. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

h. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).

i. Connect utility and emergency battery and charger unit battery connectors (WP013 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

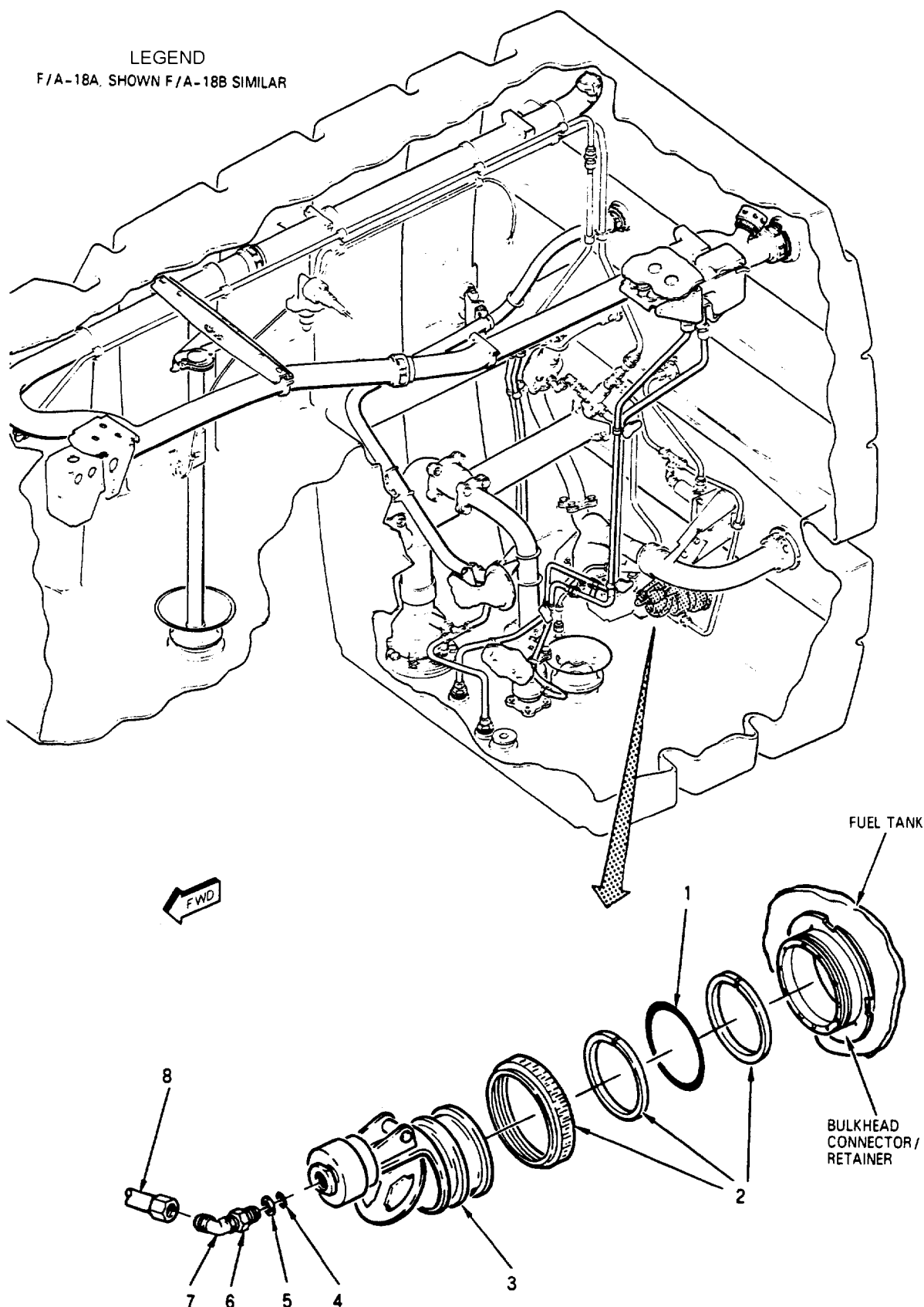


Figure 1. No. 1 Fuel Tank Pressure Operated Interconnected Valve (5VAP538)
(Sheet 1)

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INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE (5VAP538)									
1	MS29513-334	.						PACKING	1		PAOZZ
2	W702-40D	.						NUT ASSEMBLY, TUBE COUPLING (79326) (MCDONNELL SPEC ST7M191-40D) (INCLUDES NUT AND 2 WASHERS)	1	*	PAOZZ
	12H72-40D	.						SEE ABOVE (24984)	1	*	PAOZZ
3	41400-105	.						VALVE, INTERCONNECT - FUEL PRESSURE OPERATED (TANK 1) (NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE) (04192) (MCDONNELL SPEC 74-580110-105) (5VAP538)	1		PAOZZ
4	MS29512-06	.						PACKING	1		PAOZZ
5	MS28773-06	.						RETAINER	1		PAOZZ
6	AN6289D6	.						NUT	1		PAOZZ
7	7M637BW-6D	.						ELBOW, TUBE (76301)	1		PAOZZ
8	74A582050-1003	.						TUBE ASSEMBLY, METAL - MOTIVE FLOW, Y379.237 (76301)	1		MGOZZ
* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)											

Figure 1. No. 1 Fuel Tank Pressure Operated Interconnected Valve (5VAP538)
(Sheet 2)

None		Nomenclature	Specification or Part Number
Materials Required		Packing	MS29513-222
		Packing	MS29513-334
Nomenclature	Specification or Part Number	Packing	M25988-2-116
Packing	MS29512-06	Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do a general preparation for removal (WP013 00).
- b. Disconnect connector (1, figure 1, detail A).
- c. Remove coupling (7), and shell (5).
- d. Disconnect wires at pins 5 and 6 (detail C) from connector (2).
- e. Disconnect tube (9, detail B).
- f. Disconnect tube (13) from valve (12).
- g. Disconnect valve (12) and remove nut assembly (11) and packing (10).
- h. At valve (12) carefully pull each wire through tube (13) one wire at a time.
- i. Remove elbow (17), nut (16), retainer (15), and packing (14).

2. INSTALLATION.

- a. Do a general preparation for installation (WP013 00).



Petrolatum, Technical

2

- b. Lubricate new packings with petrolatum.
- c. Install nut (16, figure 1, detail B), retainer (15), packing (14) and elbow (17).
- d. Prepare mating surfaces of valve (12) for electrical bond (A1-F18AC-LMM-000).
- e. Install packing (10) and nut assembly (11) on valve (12).

- f. Install valve (12). Tighten nut assembly (11) handtight.



To prevent damage to wires, use caution when wires are unwrapped from around valve and pushed through tube.

- g. At valve (12) push wires through tube (13) one wire at a time for easy installation.
- h. Connect tubes (9 and 13).

NOTE

Wires are interchangeable between pins 5 and 6 of connector.

- i. Connect wires to pins 5 and 6 of connector (2).
- j. Install packing (6, detail A), coupling (7), and shell (5).
- k. Make sure mounting nut is safetied with lock-wire. (QA)

- l. Connect connector (1).

- m. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

- n. Install no. 1 fuel tank access cover (WP003 00 or WP004 00).

- o. Do an internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

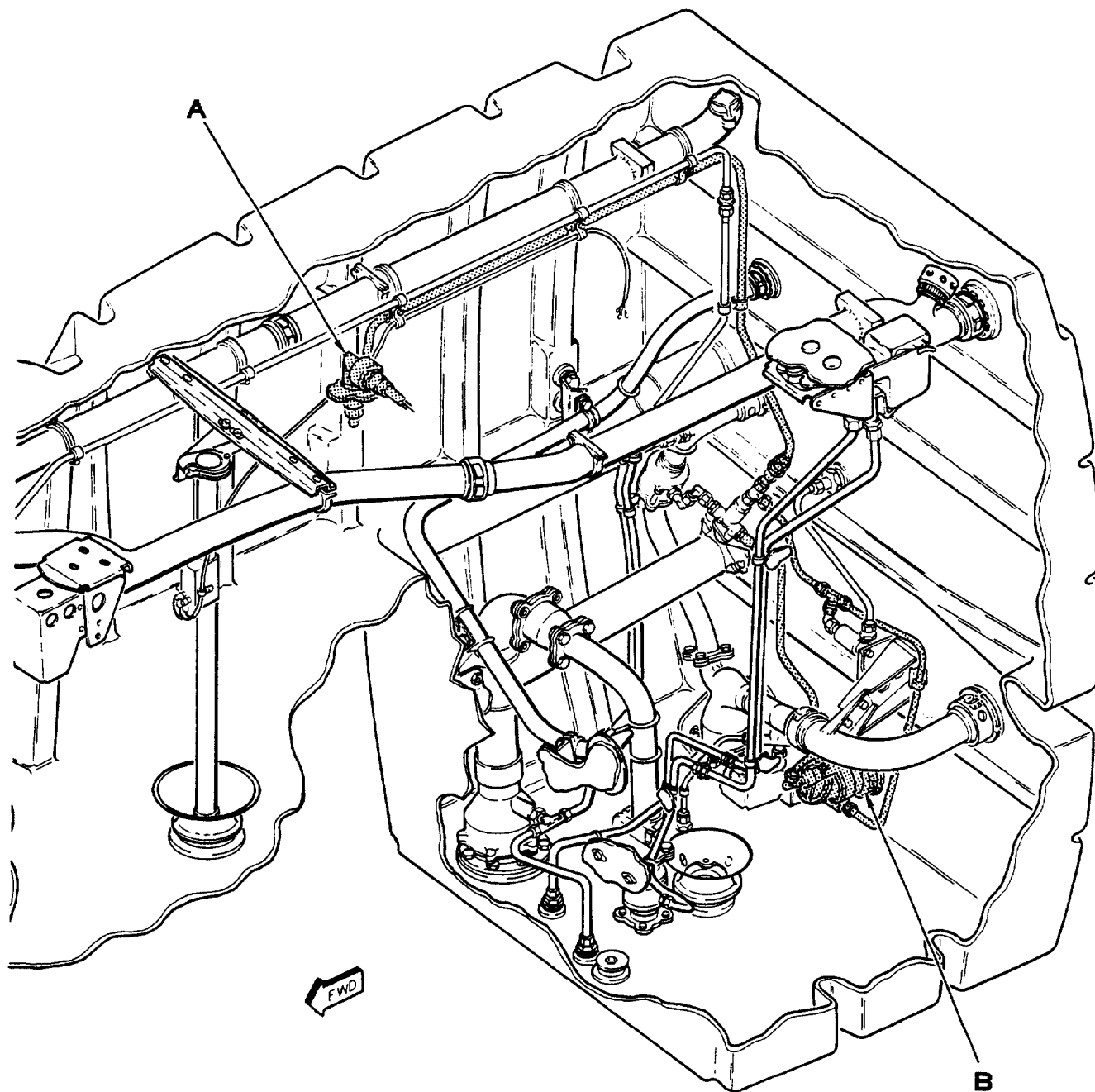
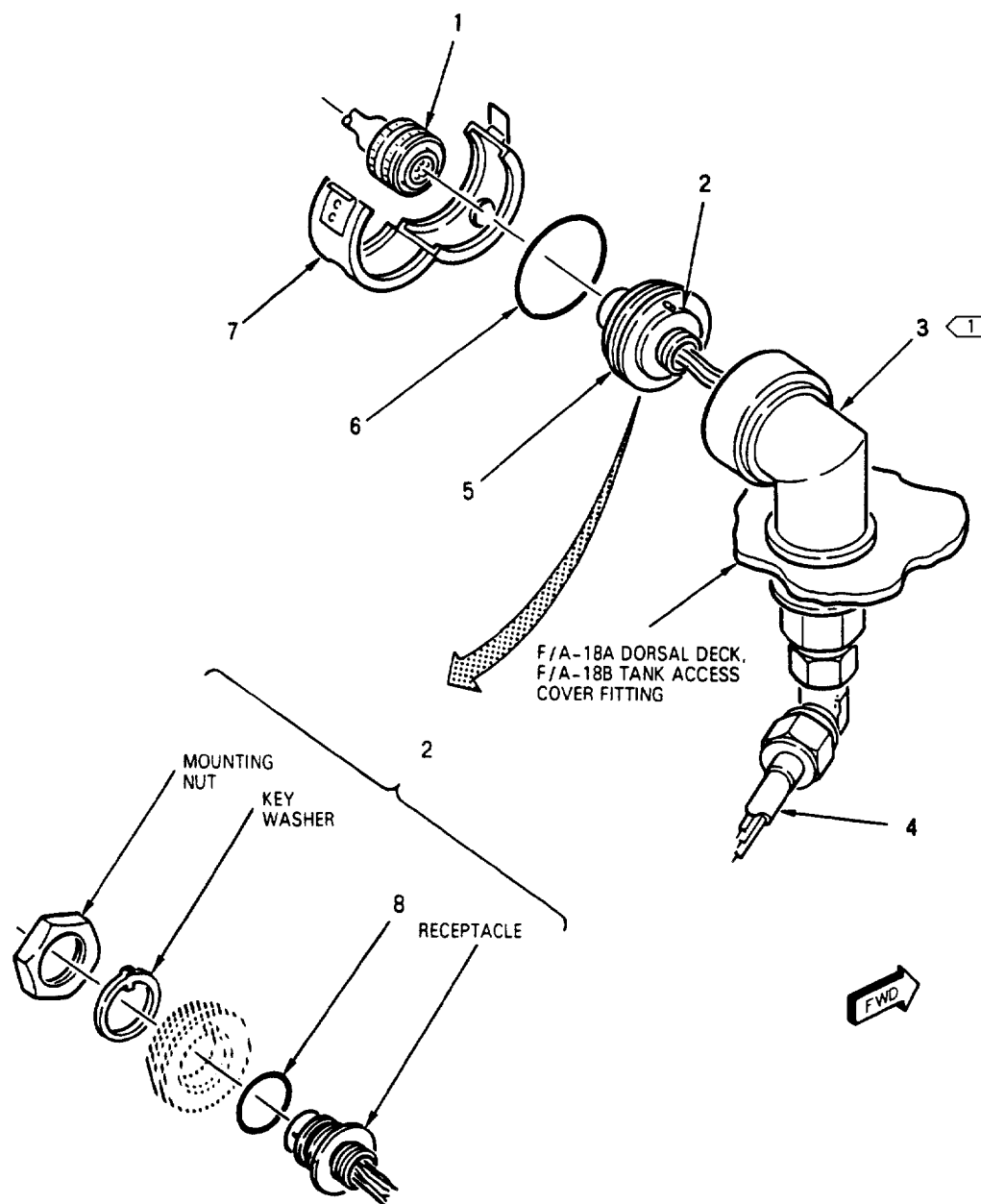
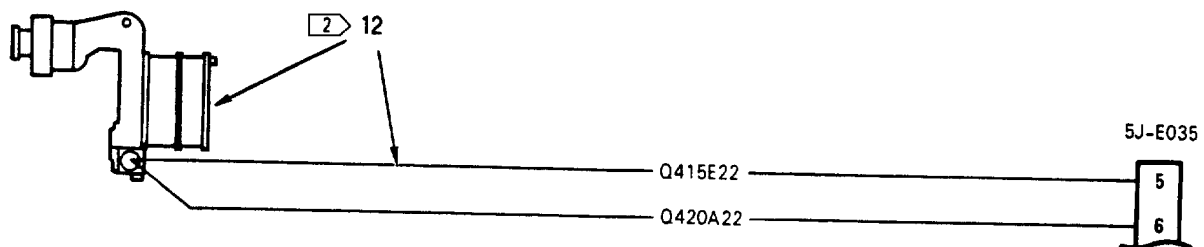
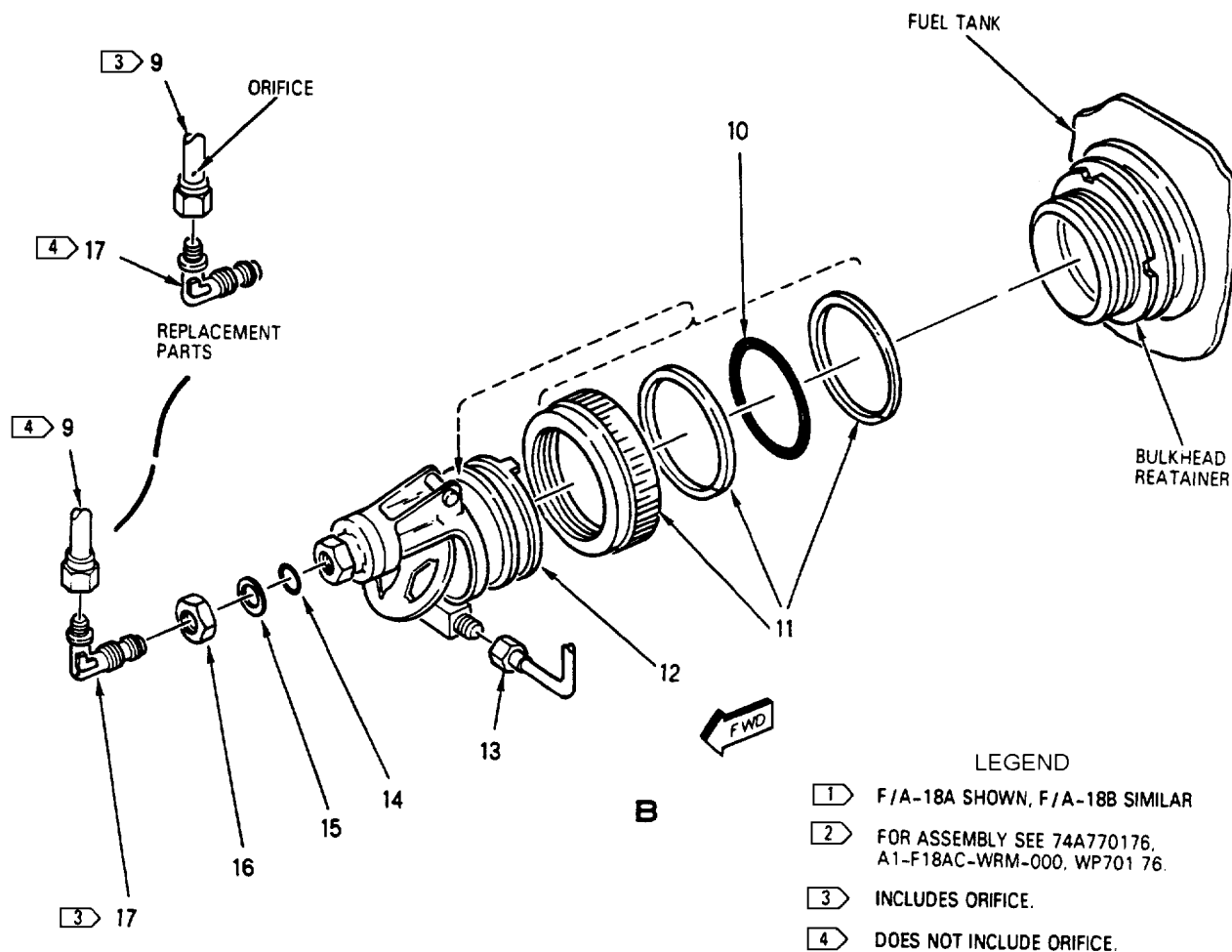


Figure 1. No. 1 Fuel Tank Pressure Operated Interconnect Valve (5S-E172)
(Sheet 1)

**A**F/A-18A SHOWN
F/A-18B SIMILAR

**Figure 1. No. 1 Fuel Tank Pressure Operated Interconnect Valve (5S-E172)
(Sheet 2)**



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Figure 1. No. 1 Fuel Tank Pressure Operated Interconnect Valve (5S-E172)
(Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE (5S-E172)									
1	MS27467T11B35S	.	CONNECTOR, PLUG (5P-E035)						1		PAOZZ
2	10-599302-35P	.	CONNECTOR, RECEPTACLE (77820)						1		PAOZZ
			(MCDONNELL SPEC 5M1934-11-35P) (5J-E035)								
3	74A580703-1003	.	ELBOW, ELECTRICAL - TANK NO. 1, 90° (76301) (SUPERSEDES 74A580703-1001)						1		XBOZZ
4	74A582100-1001	.	TUBE ASSY, METAL - CONDUIT (76301)						1	A	MGOZZ
	74A582200-1001	.	TUBE ASSY, METAL - CONDUIT (76301)						1	B	MGOZZ
5	74A580704-1001	.	SHELL, ELECTRICAL CONNECTOR - TK 1/WING (76301)						1		XBOZZ
6	MS29513-222	.	PACKING						1		PAOZZ
7	W904K24DE	.	COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M765-24D1)						1		PAOZZ
	14C12-24A	.	COUPLING, CLAMP, GROOVED (HALF) (24984) (MCDONNELL SPEC 7M765-24D1)						1		PAOZZ
	W904F24DE	.	COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M550-24D1)						1	*	PAOZZ
8	M25988-2-116	.	PACKING						1		PAOZZ
9	74A582121-2001 +	.	TUBE ASSY, PRESS SENSE INTERCONNECT, TK 1 (76301) (INCLUDES ORIFICE) (SUPERSEDES 74A582055-1001)						1		MGOZZ
	74A582055-1001 @	.	TUBE ASSY, METAL - PRESS (76301)						1	C*	MGOZZ
10	MS29513-334	.	PACKING						1		PAOZZ
11	W702-40D	.	NUT ASSEMBLY, TUBE COUPLING (79326) (MCDONNELL SPEC ST7M191-40D) (INCLUDES NUT AND 2 WASHERS)						1	*	PAOZZ
	12H72-40D	.	SEE ABOVE (24984)						1	*	PAOZZ
12	41400-113	.	VALVE, INTERCONNECT (NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE) (04192) (MCDONNELL SPEC 74-580110-113) (5S-E172) (FOR ASSEMBLY SEE 74A770176, A1-F18AC-WRM-000, WP701 76)						1	*	PAOZZ
	55-7600-2	.	SEE ABOVE (96736)						1	*	PAOZZ
13	74A582095-1001	.	TUBE ASSY, METAL - CONDUIT (76301)						1		MGOZZ
14	MS29512-06	.	PACKING						1		PAOZZ
15	MS28773-06	.	RETAINER						1		PAOZZ
16	AN6289D6	.	NUT						1		PAOZZ
17	7M637BW-6D +	.	ELBOW (76301)						1		PAOZZ
	74A582033-2001 @	.	ELBOW (76301) (INCLUDES ORIFICE)						1	C*	PAOZZ

* ALTERNATE OR EQUIVALENT PARTS. (WP002 00)

@ THESE PARTS MUST BE USED TOGETHER.

Figure 1. No. 1 Fuel Tank Pressure Operated Interconnect Valve (5S-E172)
(Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

+ THESE PARTS MUST BE USED
TOGETHER.

CODE	USABLE ON	MODEL
A	161925 & UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39	F/A-18A
B	161924 & UP; ALSO 161354 THRU 161746 AFTER F18 AFC 39	F/A-18B
C	161925 & UP; ALSO 161353 THRU 161924 AFTER F18 AFC 39	F/A-18A/B

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
NO. 2 FUEL TANK TRANSFER SHUTOFF VALVE
(5VAP597)
INTERNAL FUEL TRANSFER SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Door	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F/A-18-00055C1)	15 Jul 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing	MS29513-229
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

a. Do general preparation for removal (WP013 00).

b. On 161353 THRU 161715 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53 (figure 1), do substeps below:

(1) Disconnect tube (11).

(2) Remove bolts, (1 and 5), brackets (2 and 15) and attaching parts.

(3) Remove bolts (8), washers, valve (6) and packing (10).

(4) Remove nipple (12) and packing (13).

c. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (figure 2), do substeps, below:

(1) Remove probe guide (2, detail A), gasket (3), bolts, (1) and attaching parts.

(2) Disconnect tube (15, detail B).

(3) Remove bolts (4), brackets, (5 and 8) and attaching parts.

(4) Remove valve (9), packing (12), and attaching parts.

(5) Remove nipple (14) and packing (13).

2. INSTALLATION.

a. Do general preparation for installation (WP013 00).

b. Make sure fuel level sensor is not clogged.



Petrolatum, Technical

2

c. Lubricate new packings with petrolatum.

d. Install packing (13, figure 1 or 13, figure 2) and nipple (14) on valve (9).

e. Prepare mating surfaces of tee (11) and valve (9) for electrical bond (A1-F18AC-LMM-000).

f. On 161353 THRU 161715 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53 (figure 1), do substeps below:

(1) Install packing (10), bolts (8), washers, and valve (6).

(2) Install brackets (2 and 15), bolts (1), and attaching parts.

(3) Install clamp (3) with tube (4), bolt (5), and attaching parts.

(4) Connect tube (11).

g. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (figure 2), do substeps below:

(1) Install packing (12, detail B), valve (9), and attaching parts.

(2) Install bracket (5 and 8), bolt (4), and attaching parts.

(3) Connect tube (15).

(4) Install probe guide (2, detail A), gasket (3), bolts (1), and attaching parts.

h. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

i. Install no. 2 fuel tank access cover (WP005 00).

j. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

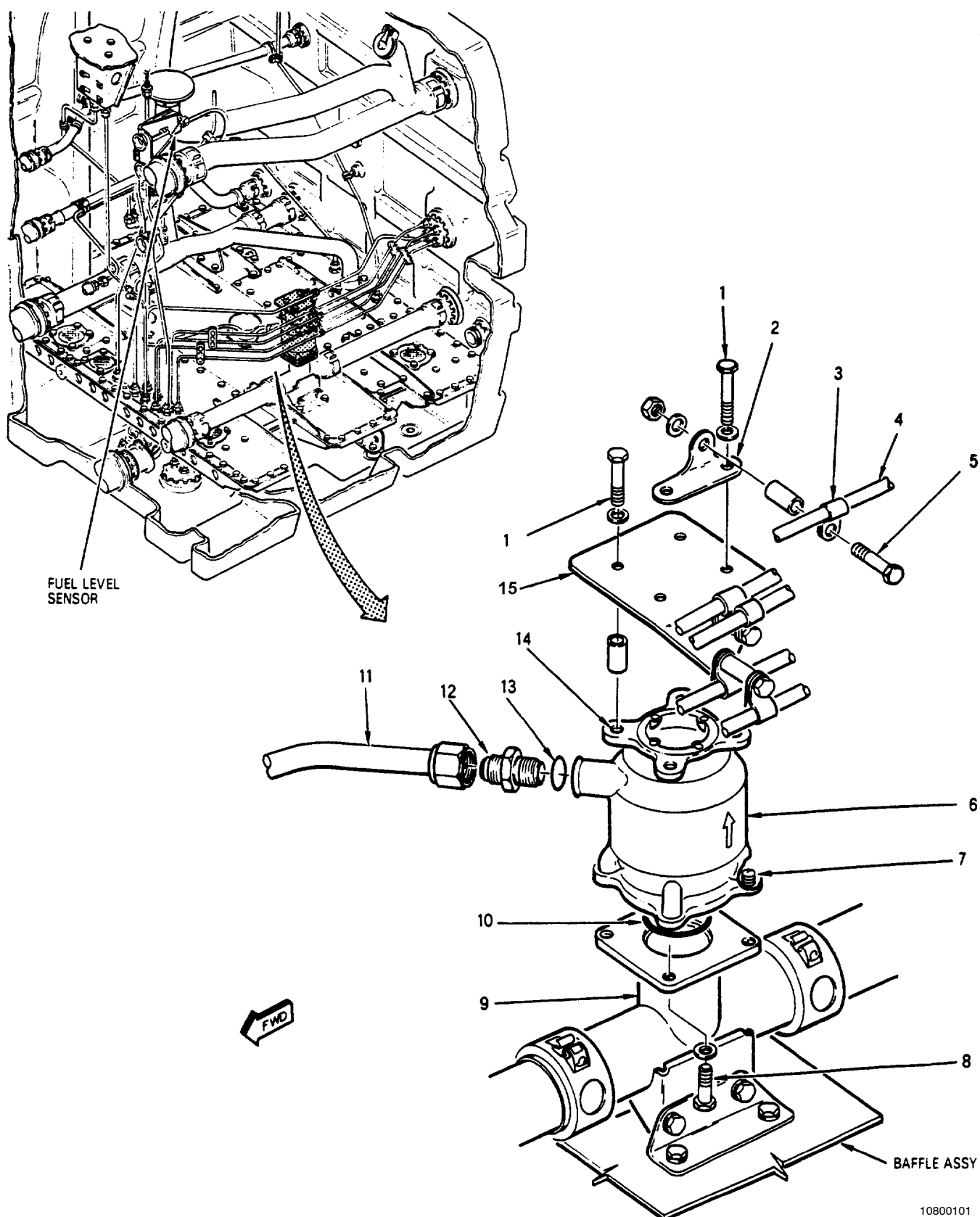


Figure 1. No. 2 Fuel Tank Transfer Shutoff Valve (5VAP597) 161353 THRU 161715 BEFORE F/A-18 AFC 018 and F/A-18 AFC 053 (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 2 FUEL TANK TRANSFER SHUTOFF								
		VALVE 161353 THRU 161715 BEFORE								
		F/A-18 AFC 18 AND F/A-18 AFC 53 (5VAP597)								
1	NAS674V21	.	BOLT					4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 1)					4		PAOZZ
	NAS42DD8-80	.	SPACER (USE WITH INDEX 1)					4		PAOZZ
2	74A586244-2011	.	BRACKET (76301)					1		XBOZZ
3	MS25281R6	.	CLAMP (SUPERSEDES MS25281-6)					1		PAOZZ
4	74A586683-1001	.	TUBE ASSY, METAL - SYSTEMS CHECK					1		MGOZZ
		LINE TO TANK NO. 4 (76301)								
5	NAS673V13	.	BOLT					1		PAOZZ
	NAS43DD3-40	.	SPACER (USE WITH INDEX 5)					1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 5)					1		PAOZZ
	NAS1291C3M	.	NUT (USE WITH INDEX 5)					1		PAOZZ
6	2760008-117	.	VALVE, SHUTOFF - FUEL TRANSFER					1		PAOZZ
		(NO. 2 FUEL TANK TRANSFER								
		SHUTOFF VALVE) (92003)								
		(MCDONNELL SPEC 74-580163-117)								
		(5VAP597) (REPLACES 2760008-115,								
		2760008-111 & 2760008-109)								
	2760008-115	.	VALVE, SHUTOFF - FUEL TRANSFER					1	*	PAOZZ
		(NO. 2 FUEL TANK TRANSFER								
		SHUTOFF VALVE) (92003) (MCDONNELL								
		SPEC 74-580163-115) (5VAP597) (USE								
		UNTIL EXHAUSTED)								
	2760008-111	.	VALVE, SHUTOFF - FUEL TRANSFER					1	*	PAOZZ
		(NO. 2 FUEL TANK TRANSFER								
		SHUTOFF VALVE) (92003) (MCDONNELL								
		SPEC 74-580163-111) (5VAP597) (USE								
		UNTIL EXHAUSTED)								
	2760008-109	.	SEE ABOVE (MCDONNELL SPEC					1	*	PAOZZ
		74-580163-105) (USE UNTIL EXHAUSTED)								
7	MS21209F4-10	.	INSERT					4		PAOZZ
8	NAS674V4	.	BOLT					4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 8)					4		PAOZZ
9	74A586266-1001	.	TEE ASSY, TRANSFER PUMP					1		XBOOO
		TANK NO. 2 (76301)								
	NS103597-02	.	NUT, SELF-LOCKING PLATE (MCDONNELL					4	*	PAOZZ
		SPEC ST3M470C3M) (USE WITH INDEX 9)								
	F10965-1-3	.	NUT, SELF LOCKING, PLATE (MCDONNELL					4	*	PAOZZ
		SPEC ST3M470C3M) (USE WITH INDEX 9)								
	F29339-01-3	.	NUT, SELF LOCKING, PLATE (MCDONNELL					4	*	PAOZZ
		SPEC ST3M470C3M) (USE WITH INDEX 9)								
	MS20426AD3 #	.	RIVET (AP)					2		-
10	MS29513-229	.	PACKING					1		PAOZZ
11	74A586245-1001	.	TUBE ASSEMBLY, METAL - JET					1		AGOGG
		LVL SNSR OUTLET, XFR								
		VALVE (76301)								
12	7M637BD-6D	.	NIPPLE, TUBE (76301)					1		PAOZZ
13	MS29512-06	.	PACKING					1		PAOZZ
14	MS21209F4-15	.	INSERT					4		PAOZZ
15	74A586244-1005	.	BRACKET (76301)					1		XBOGG

**Figure 1. No. 2 Fuel Tank Transfer Shutoff Valve (5VAP597) 161353 THRU 161715
BEFORE F/A-18 AFC 018 and F/A-18 AFC 053 (Sheet 2)**

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

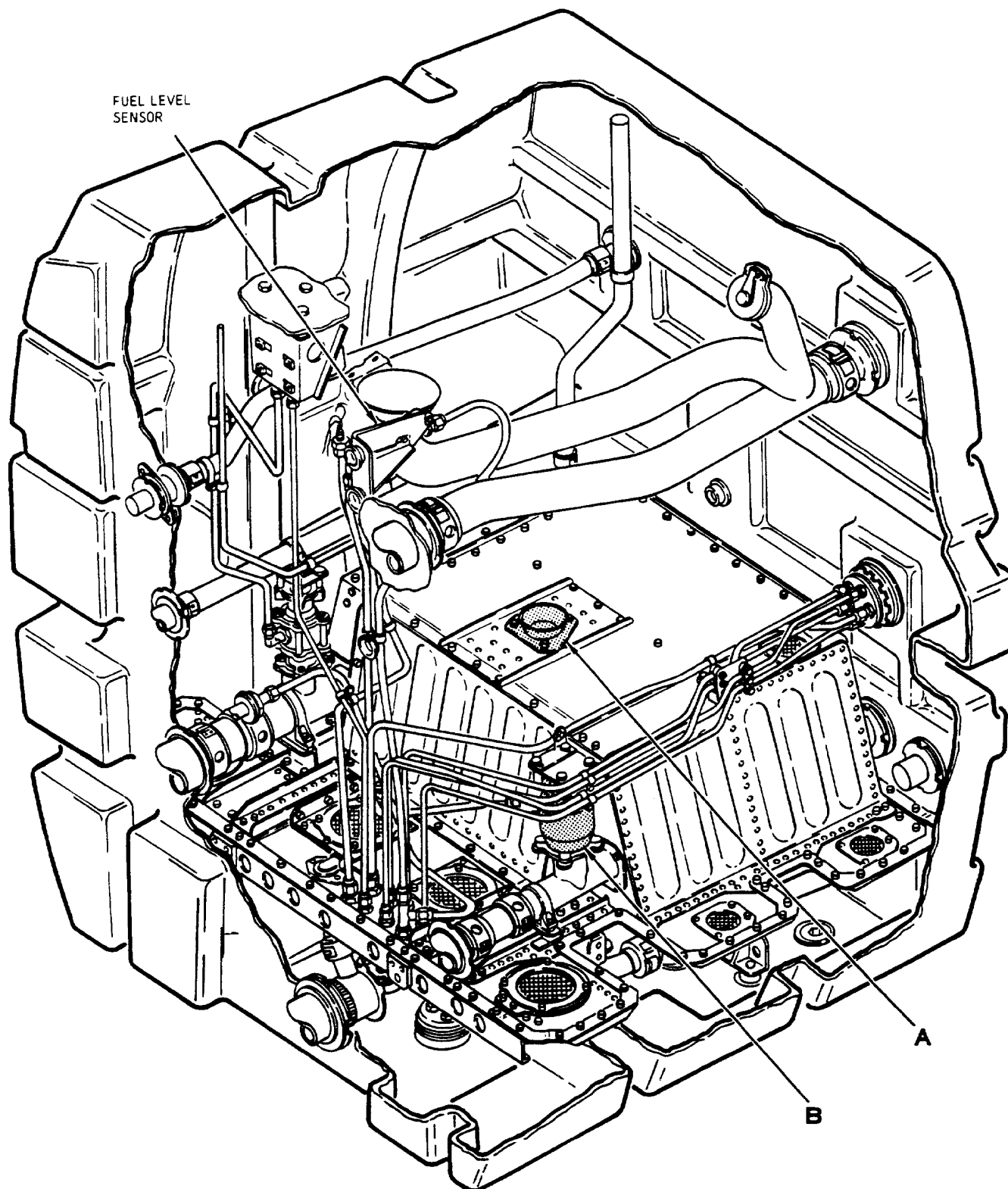
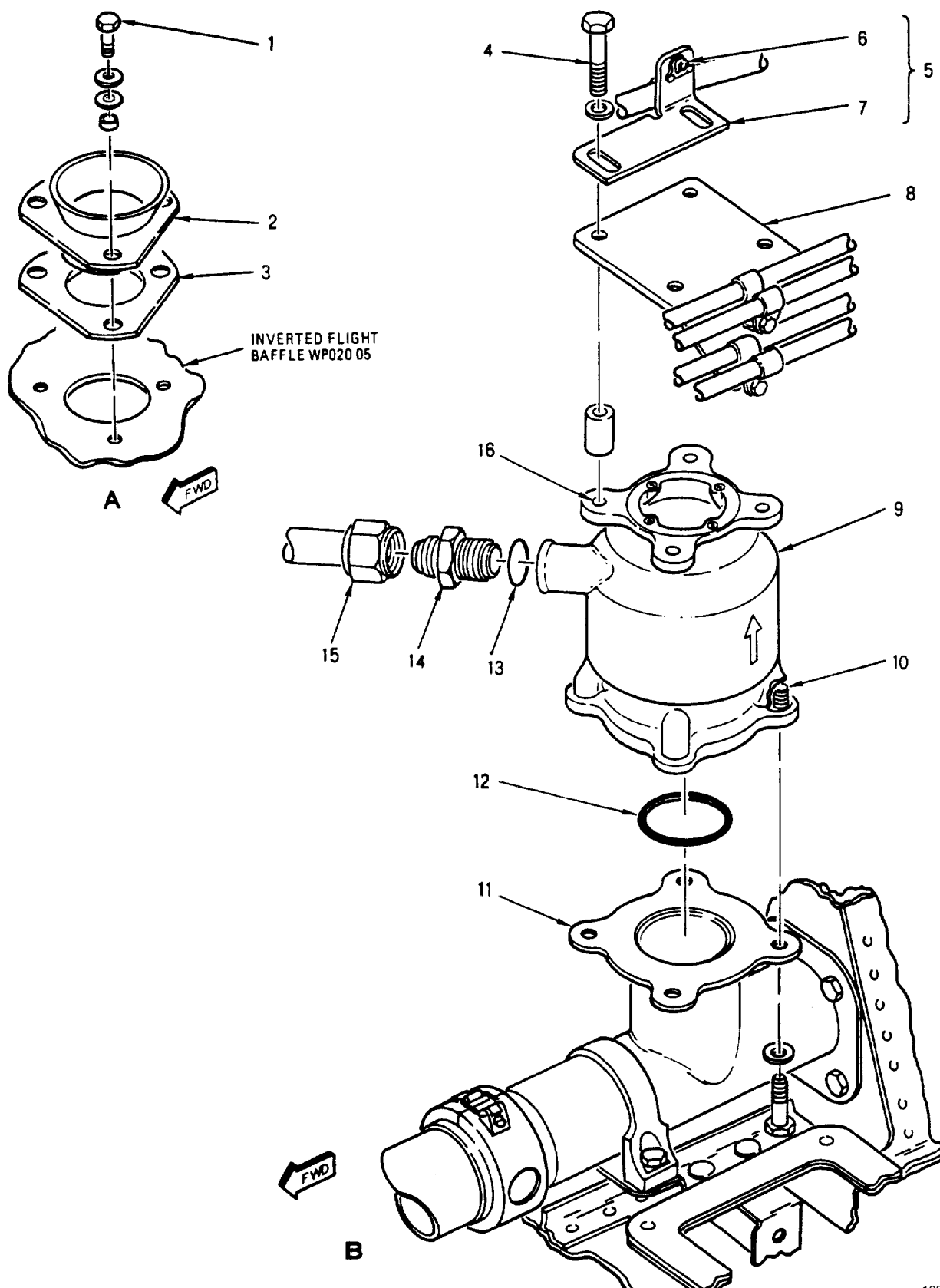


Figure 2. No. 2 Fuel Tank Transfer Shutoff Valve (5VAP597) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 1)

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Figure 2. No. 2 Fuel Tank Transfer Shutoff Valve (5VAP597) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK TRANSFER									
		SHUTOFF VALVE (5VAP597) -									
		161716 AND UP; ALSO 161353									
		THRU 161715 AFTER F/A-18									
		AFC 18 AND F/A-18 AFC 53									
1	NAS673V4	.	BOLT	.	.	.	.	.	3	A	PAOZZ
	NAS673V5	.	BOLT	.	.	.	.	.	3	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH INDEX 1)	.	.	.	.	.	6		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 1)	.	.	.	.	.	3	A	PAOZZ
	NAS43DD3-11	.	SPACER	.	.	.	.	.	1	B	PAOZZ
2	74A586297-2001	.	GUIDE, PROBE - FUEL QTY,	.	.	.	.	.	1		XBOZZ
		.	TANK 2 & 3 (76301)	.	.	.	.	.
3	74A586556-2001	.	GASKET, PROBE GUIDE - RAISED	.	.	.	.	.	1	B	MDOZZ
		.	INVERTED BAFFLE	.	.	.	.	.
		.	TK. 2 & 3 (76301)	.	.	.	.	.
4	NAS674V21	.	BOLT	.	.	.	.	.	4		PAOZZ
	AN960JD416L	.	WASHER (USE WITH INDEX 4)	.	.	.	.	.	4		PAOZZ
	NAS42DD8-80	.	SPACER (USE WITH INDEX 4)	.	.	.	.	.	4		PAOZZ
5	74A586387-1061	.	BRACKET ASSY (76301)	.	.	.	.	.	1	C	XBOOO
6	NS103597-02	.	NUT, SELF-LOCKING, PLATE	.	.	.	.	.	1	C*	PAOZZ
		.	(80539) (MCDONNELL	.	.	.	.	.
		.	SPEC ST3M470C3M)	.	.	.	.	.
	F10965-1-3	.	NUT, SELF-LOCKING, PLATE (72962)	.	.	.	.	.	1	C*	PAOZZ
		.	(MCDONNELL SPEC ST3M470C3M)	.	.	.	.	.
	F29339-01-3	.	NUT, SELF LOCKING, PLATE (15653)	.	.	.	.	.	1	C*	PAOZZ
		.	MCDONNELL SPEC ST3M470C3M)	.	.	.	.	.
	MS20426AD3 #	.	RIVET (AP)	.	.	.	.	.	2	C	-
7	74A586387-2143	.	BRACKET (76301) (SUPERSEDES	.	.	.	.	.	1	C	XBOZZ
		.	74A586387-2077)	.	.	.	.	.
8	74A586244-1005	.	BRACKET (76301)	.	.	.	.	.	1		XBOGG
	MS21060L3	.	NUT, PLATE (USE WITH INDEX 8)	.	.	.	.	.	1		PAOZZ
	MS20426AD3 #	.	RIVET (AP)	.	.	.	.	.	2		-
9	2760008-117	.	VALVE SHUTOFF - FUEL TRANSFER	.	.	.	.	.	1		PAOZZ
		.	(NO. 2 FUEL TANK TRANSFER	.	.	.	.	.
		.	SHUTOFF VALVE) (92003)	.	.	.	.	.
		.	(MCDONNELL SPEC 74-580163-117)	.	.	.	.	.
		.	(5VAP597)	.	.	.	.	.
	2760008-115	.	VALVE SHUTOFF - FUEL TRANSFER	.	.	.	.	.	1	*	PAOZZ
		.	(NO. 2 FUEL TANK TRANSFER	.	.	.	.	.
		.	SHUTOFF VALVE) (92003)	.	.	.	.	.
		.	(MCDONNELL SPEC 74-580163-115)	.	.	.	.	.
		.	(5VAP597)	.	.	.	.	.
	2760008-111	.	SEE ABOVE (MCDONNELL	.	.	.	.	.	1	*	PAOZZ
		.	SPEC 74-580763-111)	.	.	.	.	.
	NAS674V4	.	BOLT (AP)	.	.	.	.	.	4		PAOZZ
	AN960JD416L	.	WASHER (AP)	.	.	.	.	.	4		PAOZZ
10	MS21209F4-10	.	INSERT	.	.	.	.	.	4		PAOZZ
11	74A586272-2011	.	TEE ASSEMBLY, TRANSFER VALVE	.	.	.	.	.	1		XBOZZ
		.	TANK NO. 2 (76301) (SUPERSEDES	.	.	.	.	.
		.	74A586272-1001 AND 74A586272-1003)	.	.	.	.	.
	NAS673V4	.	BOLT (AP)	.	.	.	.	.	4		PAOZZ
	AN960JD10L	.	WASHER (AP)	.	.	.	.	.	4		PAOZZ
12	MS29513-229	.	PACKING	.	.	.	.	.	1		PAOZZ
13	MS29512-06	.	PACKING	.	.	.	.	.	1		PAOZZ

Figure 2. No. 2 Fuel Tank Transfer Shutoff Valve (5VAP597) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
14	7M637BD-6D	.						NIPPLE, TUBE (76301)	1		PAOZZ
15	74A586245-1005	.						TUBE ASSEMBLY, METAL - JET LEVEL	1		AGOGG
								SENSOR, TK NO. 2 (76301) (SUPERSEDES 74A586245-1003)			
16	MS21209F4-15	.						INSERT	4		PAOZZ

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161716 THRU 161761 BEFORE F/A-18 AFC 18	F/A-18A/B
B	161924 & UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B
C	161716 & UP	F/A-18A/B

**Figure 2. No. 2 Fuel Tank Transfer Shutoff Valve (5VAP597) 161716 AND UP; ALSO
161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 4)**

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
NO. 2 FUEL TANK FUEL LEVEL SENSOR
(5VAP595)
INTERNAL FUEL TRANSFER SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuselage Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System, Testing and Troubleshooting	A1-F18AC-460-200
No. 2 Fuel Tank Cycle Test	WP012 04
Line Maintenance Procedures	A1-F18AC-LMM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 IAFC 017 Part 1 and Part 2	-	Fuel System Tank No. 4 Fuel Transfer Manifold, Modification of (ECP MDA F/A-18-00084R1)	15 Jul 86	-

Support Equipment Required

None

Materials Required

None

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect tube (4, figure 1, detail A) and elbow (2) from sensor (5).
- c. On 161353 THRU 161982 BEFORE F/A-18 IAFC 017, remove bolts (8), washers (10), shield (7), spacer (9), sensor (5) and attaching parts.

d. On 161983 AND UP; ALSO 161353 THRU 161982 AFTER F/A-18 IAFC 017, remove bolts (3), washers (6), sensor (5) and attaching parts.

2. INSTALLATION.

a. Do general preparation for installation (WP013 00).

b. On 161353 THRU 161982, BEFORE F/A-18 IAFC 017, do substeps below:

(1) Prepare mating surfaces of shield (7, figure 1, detail A) and bolts (8) for electrical bonding (A1-F18AC-LMM-000).

(2) Install sensor (5), shield (7), bolts (8), washers (10), spacer (9) and attaching parts.

c. On 161983 AND UP; ALSO 161353 THRU 161982 AFTER F/A-18 IAFC 017, do substeps below:

(1) Prepare mating surfaces of bolts (3) and sensor (5) for electrical bonding (A1-F18AC-LMM-000).

(2) Install sensor (5), bolts (3), washers (6) and attaching parts.



To prevent damage to sensor, hold sensor with wrench while torquing tube and elbow.

d. Connect tube (4) and elbow (2) to sensor (5). Hold sensor (5) with wrench while torquing tube (4) and elbow (2).

e. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

f. Install no. 2 fuel tank access cover (WP005 00).

g. Connect utility and emergency battery connectors (WP013 00).

h. Do no. 2 fuel tank cycle test (A1-F18AC-460-200, WP012 04).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

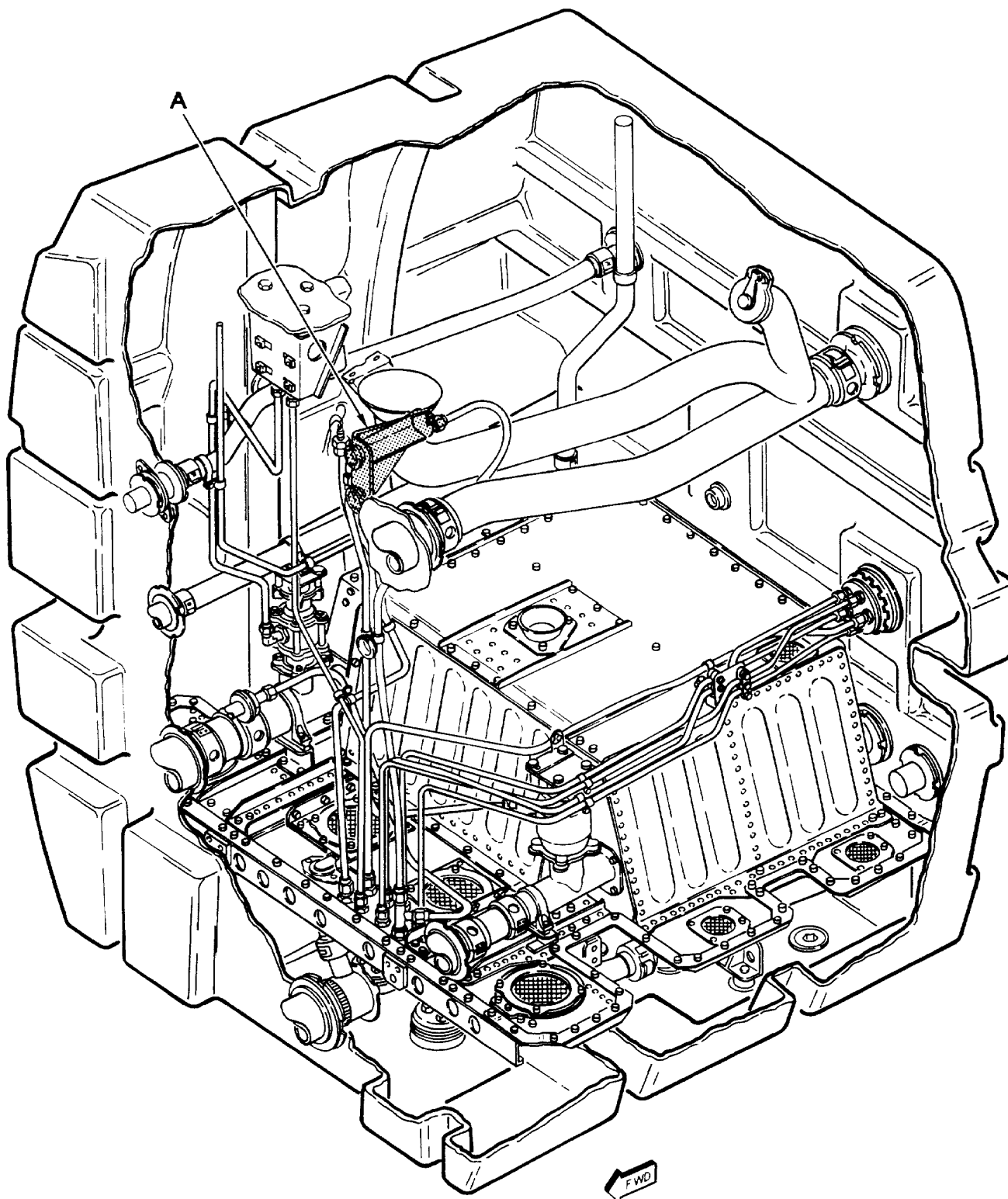


Figure 1. No. 2 Fuel Tank Fuel Level Sensor (5VAP595) (Sheet 1)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK FUEL LEVEL									
		SENSOR (5VAP595)									
1	74A586244-1027	.	BRACKET ASSY (76301)						1	B	XBOGG
	NAS673V3	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
2	7M148V6	.	ELBOW (76301)						1		PAOZZ
	7M148DA6	.	ELBOW (76301)						1	*	PAOZZ
3	NAS673V16	.	BOLT						2	B	PAOZZ
	AN960JD10	.	WASHER (USE WITH INDEX 3)						2	B	PAOZZ
4	74A586243-1001	.	TUBE ASSEMBLY, METAL - JET						1		XBOZZ
			LEVEL SENSOR, FUEL								
			TK NO. 2 (76301)								
5	2760009-105	.	SENSOR, FUEL LEVEL, JET						1	B	PAOZZ
			OPERATED (NO. 2 FUEL TANK								
			FUEL LEVEL SENSOR) (92003)								
			(MCDONNELL SPEC 74-580123-105)								
			(5VAP595) (REPLACES 2760009-103)								
	2760009-103	.	SENSOR, FUEL LEVEL - JET						1	A	PAOZZ
			OPERATED (NO. 2 FUEL TANK								
			FUEL LEVEL SENSOR) (92003)								
			(MCDONNELL SPEC 74-580123-103)								
			(5VAP595) (USE UNTIL EXHAUSTED)								
6	AN960JD10	.	WASHER						2	B	PAOZZ
7	74A586244-2063	.	SHIELD (76301)						1	A	XBOZZ
8	NAS673V21	.	BOLT						2	A	PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 8)						2	A	PAOZZ
9	NAS43DD3-18	.	SPACER						2	A	PAOZZ
10	AN960JD10	.	WASHER						2		PAOZZ
11	74A586244-1015	.	BRACKET ASSY (76301)						1	A	XBOGG
	NAS673V3	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

CODE	USABLE ON	MODEL
A	161353 THRU 161982 BEFORE F18 IAFC 017 PART 1 AND PART 2	F/A-18A/B
B	161983 & UP: ALSO 161353 THRU 161982 AFTER F18 IAFC 017 PART 1 AND PART 2	F/A-18A/B

Figure 1. No. 2 Fuel Tank Fuel Level Sensor (5VAP595) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**No. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5S-R132)**

INTERNAL FUEL TRANSFER SYSTEM

Title	WP Number
No. 2 Fuel Tank Pressure Operated Interconnect Valve - 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53	110 01
No. 2 Fuel Tank Pressure Operated Interconnect Valve - 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	110 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5S-R132)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Lines Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required (Cont)

Materials Required		Nomenclature	Specification or Part Number
Nomenclature	Specification or Part Number		
		Petrolatum, Technical	VV-P-236 (CAGE 81348)
		Lacing Tape,	MIL-T-43435, Type-2 Size-3 Finish-C (CAGE 81349)
Packing	MS29512-06		
Packing (2)	MS29513-222	Wire, Safety,	MS20995NC32
Packing	MS29513-334	Nonelectrical	(CAGE 96906)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. On F/A-18A, do substeps listed below:
 - (1) Disconnect connector (6, figure 1, detail A).
 - (2) Disconnect adapter (1) at elbow (4).
 - (3) Remove coupling (3).
 - (4) Remove wires from connector (8) and slide wires through adapter (1).
- c. On F/A-18B, do substeps listed below:
 - (1) Disconnect connector (6, figure 1, detail A).
 - (2) Remove coupling (3).
 - (3) Remove wires from connector (8).
- d. Attach a 6 foot length of lacing tape to wires.
- e. Remove clamp (15, detail B), and attaching parts.
- f. Disconnect tube (21).
- g. Loosen clamp (19) attaching parts.
- h. Remove bolts (17), packing (2), and attaching parts.
- i. Rotate manifold (16) enough so that tube (18) can be removed.
- j. Remove or loosen bolts, as required, to remove web (24, detail C).
- k. Remove coupling (3), packings (2), and tube (18).
- l. Disconnect elbow (33, detail D) at valve (30).
- m. Disconnect tube (26) at elbow (33) and tube (34) at tee (27).
- n. Disconnect valve (30), remove nut assembly (31), and attaching parts.

o. Pull wires through tubes (9, detail A, and 25, detail D), then remove lacing tape and wrap wires around valve (30), remove valve.

p. Tie lacing tape to tubes (9, detail A and 25, detail D) on both ends.

q. Remove tee (27) with elbow (33) and nut (28).

2. INSTALLATION.

a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. When installing 41400-109 valve, do substeps below:

(1) Install packing (32, figure 1, detail D) on valve (30).

(2) Position valve (30) and handtighten nut assembly (31).



To prevent damage to fuel tank, valve should not contact fuel tank.

(3) Inspect valve (30) for contact with fuel tank (view E).

(4) If 41400-109 valve (30) contacted fuel tank in substep c(3), replace with 74B580071-1003 valve, 41400-111 valve or 55-7600-1 valve.

d. Prepare mating surfaces of nut (28) and valve (30) for electrical bond. Install nut (28), packing (29) and tee (27) with elbow (33) (A1-F18AC-LMM-000).

e. Install nut (28), nut assembly (31) on valve (30) with packing (32).

f. Install valve (30) and handtighten nut assembly (31).



To prevent damage to wires, use caution when wires are unwrapped from around valve and pulled through conduit.

g. Carefully unwrap wires from around valve (30) and tie to end of lacing tape.

h. Carefully pull lacing tape at dorsal deck until wires are visible.

i. Connect tubes (26 and 34, detail D) and elbow (33). Torque elbow (33) 75 to 140 inch-pounds. (QA)

j. Install packings (2, detail C), tube (18) and coupling (3).

k. Inspect and remove any foreign objects from below baffle area.

l. Position web (30) and install attaching parts.

m. Install clamp (17) and attaching parts. Install tube (28).

n. Install clamp (15) and attaching parts.

o. Rotate manifold (16) into position.

p. Install packing (2, detail B), manifold (16), and attaching parts (17).

q. On F/A-18A, do substeps listed below:

(1) Prepare mating surface of adapter (1, detail A) for electrical bond with adapter (5).

(2) Untie lacing tape and wires, then carefully route wires through adapter (1).

NOTE

Wires are interchangeable between pins 5 and 6 of connector (8).

(3) Connect wires to pins 5 and 6 of connector (8).

(4) Make sure connector (8) nut is safetied with lockwire. (QA)

(5) Connect adapter (1) at elbow (4), then install packings (2) and coupling (3).

r. On F/A-18B, do substeps listed below:

NOTE

Wires are interchangeable between pins 5 and 6 of connector (8).

(1) Untie lacing tape and wires, then connect wires to pins 5 and 6 of connector (8, detail A).

(2) Make sure connector (8) nut is safetied with lockwire. (QA)

(3) Install packings (2), coupling (3) and adapter (13).

s. Connect connector (6).

t. Do fuselage fuel tanks motive flow/transfer lines couplings inspection (WP013 01). (QA)

u. Install no. 2 fuel tank access cover (WP006 00).

v. Connect utility and emergency battery connectors (WP013 00).

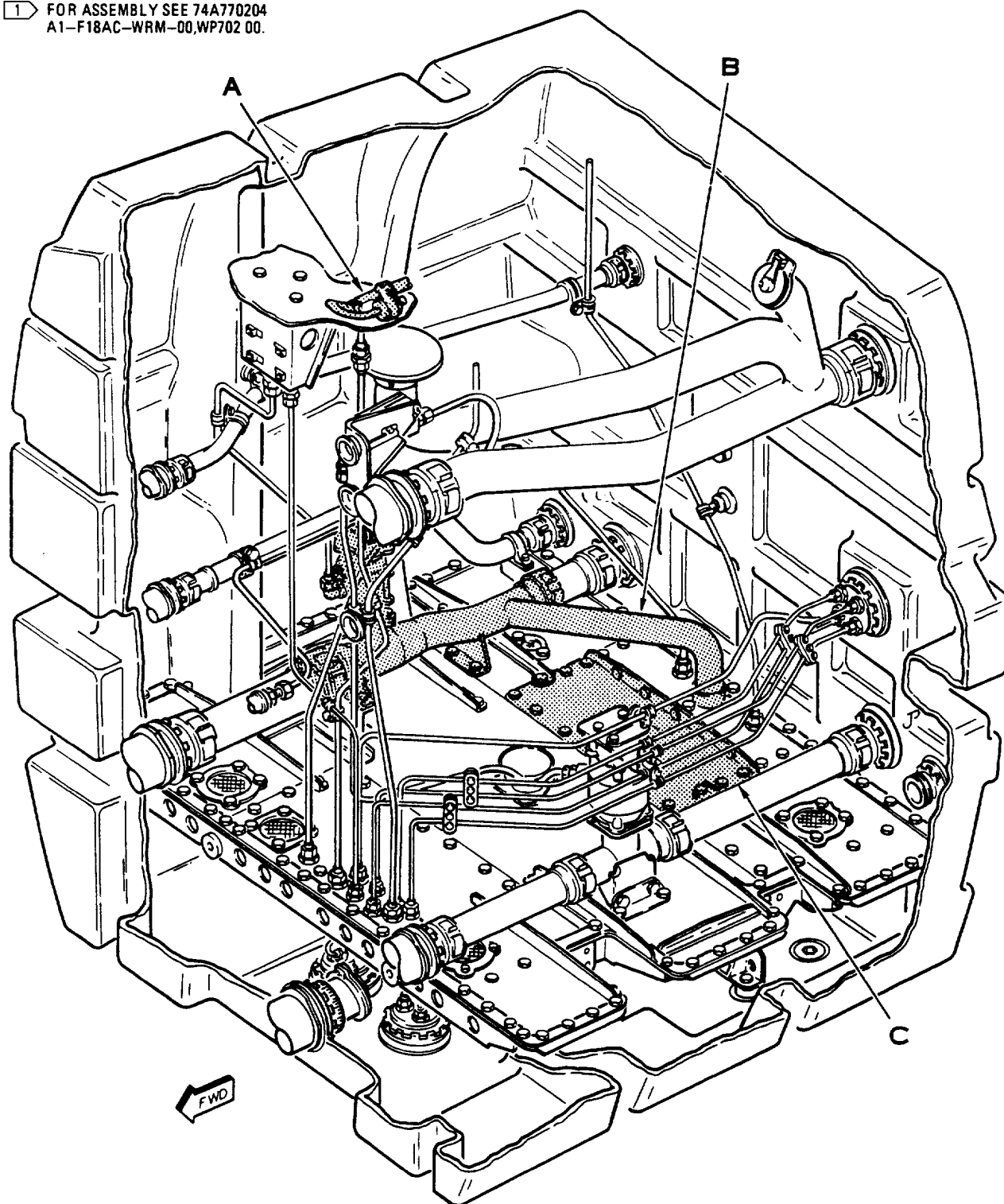
w. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

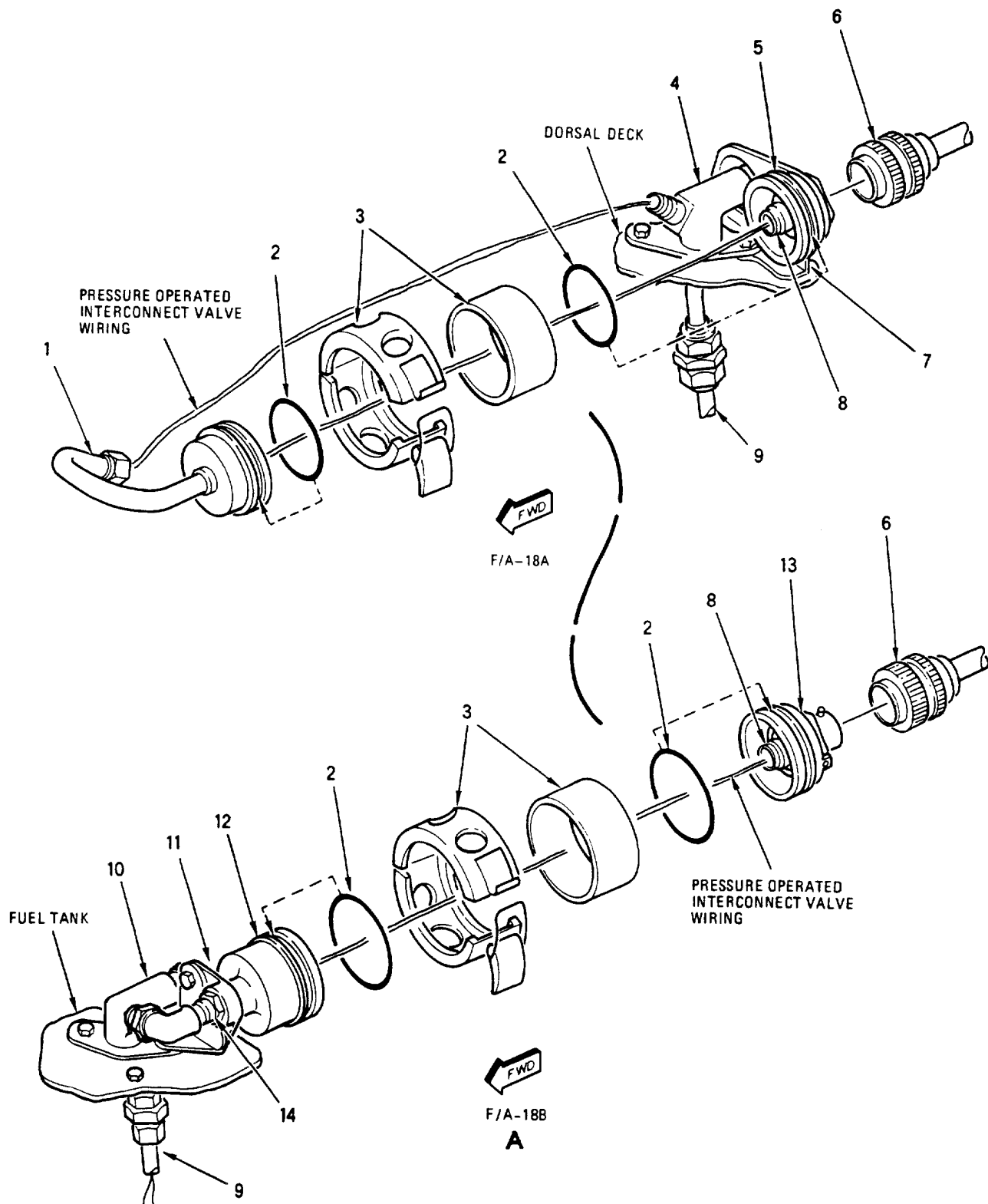
LEGEND

1 FOR ASSEMBLY SEE 74A770204
A1-F18AC-WRM-00,WP702 00.



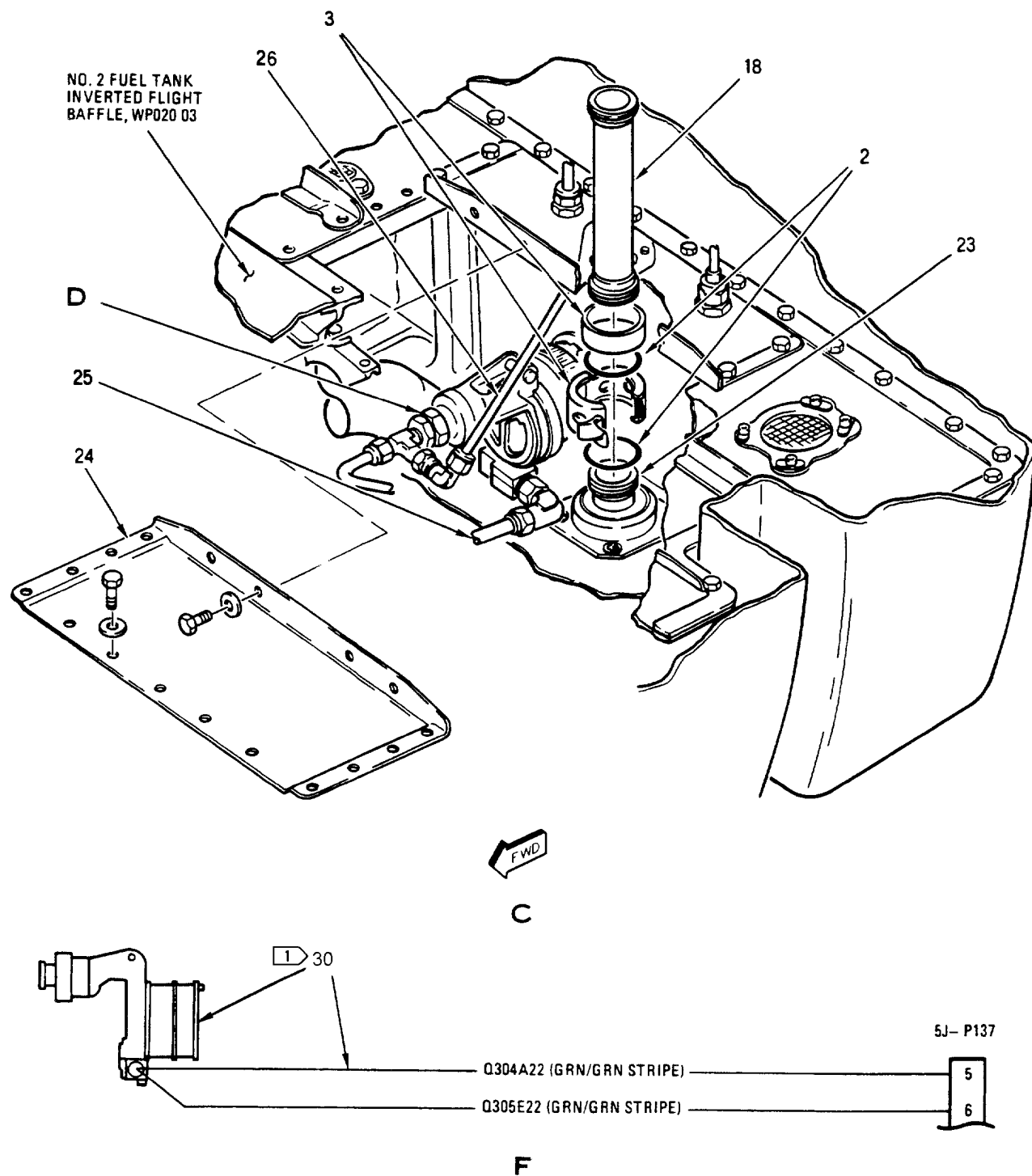
11001011

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 1)



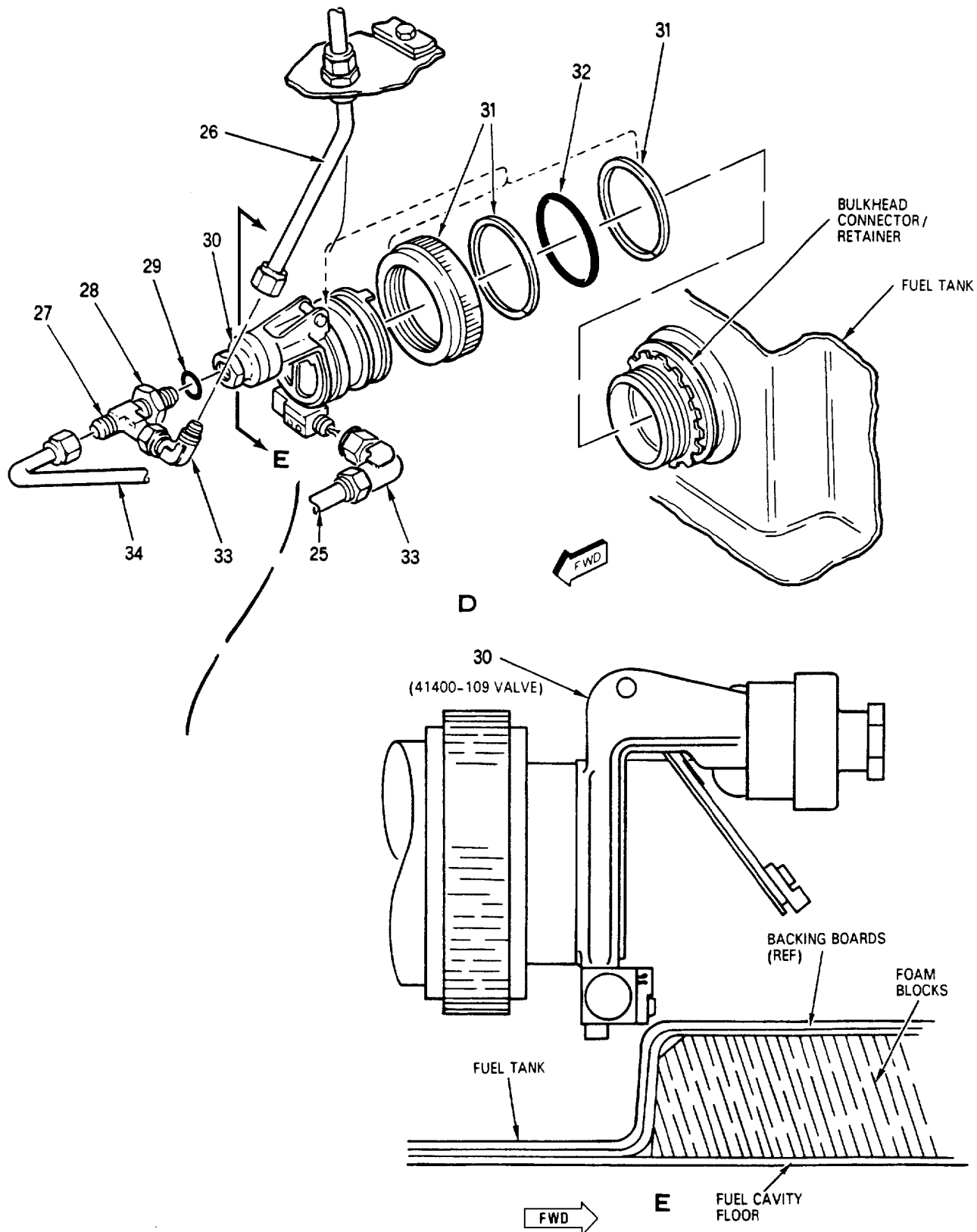
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Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 2)



11001014

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 4)



11001015

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE (5S-R132)									
1	74A586694-1001	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (TUBE) (76301)						1	A	XBOZZ
2	MS29513-222	.	PACKING						4		PAOZZ
3	W901K24DE	.	COUPLING, CLAMP, GROOVED (MCDONNELL SPEC 7M765-24D) (INCLUDES SLEEVE)						2		PAOZZ
	14J12-24A	.	COUPLING, CLAMP, GROOVED (MCDONNELL SPEC 7M765-24D) (INCLUDES SLEEVE)						2		PAOZZ
	W901F24DE	.	COUPLING, CLAMP, GROOVED (MCDONNELL SPEC 7M550-24D) (INCLUDES SLEEVE)						2	*	PAOZZ
4	74A586255-1005	.	ELBOW, TUBE - 0.50 IN. LINE, VENT FUEL SYSTEM (76301) (SUPERSEDES 74A586255-1001)						1	A	XBOZZ
5	74A586694-2003	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (76301)						1	A	XBOZZ
6	MS27467T11B35S	.	CONNECTOR, PLUG (5P-P137)						1		PAOZZ
7	74A586244-2093	.	BRACKET (76301)						1	A	XBOZZ
8	KJL7YC103451-3	.	CONNECTOR, RECEPTACLE, ELECTRICAL (71468) (MCDONNELL SPEC 5M1701-11D35PN) (INCLUDES NUT) (5J-P137)						1	*	PAOZZ
	92344-01	.	SEE ABOVE (14283)						1	*	PAOZZ
	AE171411-35PN	.	SEE ABOVE (59976)						1	*	PAOZZ
9	74A586681-1005	.	TUBE ASSEMBLY, METAL - G FEED POSITION SIGNAL, TANK NO. 2 (76301) (SUPERSEDES 74A586681-1001) AND 74A586681-1003)						1		MGOZZ
10	74A586255-1011	.	ELBOW, TUBE - 0.50 IN LINE, VENT FUEL SYSTEM (76301) (SUPERSEDES 74A586255-1007 AND 74A586255-1003)						1	B	XBOZZ
11	74A586244-2065	.	BRACKET (76301)						1	B	XBOZZ
12	74A586612-2001	.	ADAPTER - ELECTRICAL JUNCTION BOX, NO. 2 FUEL TANK (76301)						1	B	XBOZZ
13	74A586694-2007	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (76301)						1	B	XBOZZ
14	ST7M263V6	.	ELBOW (76301)						1	B	PAOZZ
	ST7M263DA6	.	ELBOW (76301)						1	B*	PAOZZ
	AN6289D6	.	NUT (USE WITH INDEX 14)						1		PAOZZ
15	NAS1787A20G	.	CLAMP						1		PAOZZ
	NAS673V3	.	BOLT (AP)						2		PAOZZ
	AN960JD10L	.	WASHER (AP)						2		PAOZZ
16	74A586203-1001	.	MANIFOLD, AIRCRAFT - TANK NO. 2, REFUEL SYS (76301)						1		XBOZZ
17	NAS673V3	.	BOLT (AP)						5		PAOZZ

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
18	AN960JD10L	.	WASHER (AP)	.	.	.	.	.	5		PAOZZ
	74A586264-1005	.	TUBE ASSEMBLY, METAL - PYLON	.	.	.	.	.	1		XBOZZ
			SUCTION LINE, TANK NO. 2								
			(76301) (SUPERSEDES 74A586264-1003)								
19	NAS1787A40G	.	CLAMP	.	.	.	.	.	1		PAOZZ
	NAS673V9	.	BOLT (AP)	.	.	.	.	.	2		PAOZZ
	AN960JD10L	.	WASHER (AP)	.	.	.	.	.	2		PAOZZ
20	7M148V6	.	ELBOW (76301)	.	.	.	.	.	1		PAOZZ
	7M148DA6	.	ELBOW (76301)	.	.	.	.	.	1	*	PAOZZ
21	74A586283-1003	.	TUBE ASSEMBLY, METAL - FLOAT	.	.	.	.	.	1		MGOZZ
			VALVE TO RH PORT TO								
			REFUEL V (76301)								
22	74A586244-1013	.	SUPPORT (76301)	.	.	.	.	.	1		XBOGG
	A11144-7-3	.	NUT, CLIP (72962) (MCDONNELL	.	.	.	.	.	1	*	PAOZZ
			SPEC ST3M523C3M) (USE WITH								
			INDEX 22)								
	130091	.	NUT, CLIP (76530) (MCDONNELL	.	.	.	.	.	1	*	PAOZZ
			SPEC ST3M523C3M) (USE WITH								
			INDEX 22)								
23	74A586558-2001	.	RETAINER - FUEL TRANS, TK 2	.	.	.	.	.	1		XBOZZ
			TO CTR PYLON (76301)								
24	74A586204-2415	.	WEB (76301)	.	.	.	.	.	1		MGOZZ
	NAS673Y5	.	BOLT (AP)	.	.	.	.	.	16		PAOZZ
	AN960JD10L	.	WASHER (AP)	.	.	.	.	.	16		PAOZZ
25	74A586680-1005	.	TUBE ASSEMBLY, METAL - GRAVITY	.	.	.	.	.	1		MGOZZ
			FEED SIGNAL, BELOW BAFFLE (76301)								
26	74A586828-1003	.	TUBE ASSEMBLY, METAL - PRESS,	.	.	.	.	.	1		MGOZZ
			Y411 ELBOW - TUBE (76301)								
27	7M637AX-D6	.	TEE, TUBE (76301)	.	.	.	.	.	1		PAOZZ
28	AN924-6D	.	NUT	.	.	.	.	.	1		PAOZZ
29	MS29512-06	.	PACKING	.	.	.	.	.	1		PAOZZ
30	55-7600-5	.	VALVE, INTERCONNECT, FUEL,	.	.	.	.	.	1		PAOZZ
			PRESSURE OPERATED (NO. 2								
			FUEL TANK PRESSURE OPERATED								
			INTERCONNECT VALVE) (96736)								
			(MCDONNELL SPEC 74-580110-119)								
			(5S-R132) (REPLACES 55-7600-1,								
			41400-109 AND 74B580071-1003)								
	74B580188-1001	.	SEE ABOVE (76301) (REPLACES	.	.	.	.	.	1	*	PAOZZ
			55-7600-1, 41400-109 & 74B580071-1003)								
	41400-111	.	SEE ABOVE (04192) (MCDONNELL	.	.	.	.	.	1	*	PAOZZ
			SPEC 74-580110-111) (REPLACES								
			55-7600-1, 41400-109 & 74B580071-1003)								
	41400-109 +	.	SEE ABOVE (04192) (MCDONNELL	.	.	.	.	.	1	*	PAOZZ
			SPEC 74-580110-109 (REPLACED								
			BY 41400-111, OR 55-7600-5) (USE								
			UNTIL EXHAUSTED)								
	74B580071-1003 +	.	VALVE, INTERCONNECT, FUEL,	.	.	.	.	.	1	*	PAOZZ
			PRESSURE OPERATED (TANK 2)								
			(NO. 2 FUEL TANK PRESSURE								
			OPERATED INTERCONNECT VALVE)								
			(76301) (5S-R132) (REPLACED BY								
			41400-111 OR 55-7600-5) (USE								
			UNTIL EXHAUSTED)								
31	W702-40D	.	NUT ASSEMBLY, TUBE COUPLING	.	.	.	.	.	1	*	PAOZZ
			(79326) (MCDONNELL SPEC								
			ST7M191-40D) (INCLUDES NUT								
			AND 2 WASHERS)								
	12H72-40D	.	SEE ABOVE (24984)	.	.	.	.	.	1	*	PAOZZ
32	MS29513-334	.	PACKING	.	.	.	.	.	1		PAOZZ

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 7)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
33	7M148V6	.	ELBOW (76301)	.....					2		PAOZZ
	7M148DA6	.	ELBOW (76301)	.....					2	*	PAOZZ
34	74A586827-1001	.	TUBE ASSEMBLY, METAL - PRESS	.....					1		MGOZZ
			FILTER TEE - Y410, VALVE								
			TEE (76301)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

+ 41400-109 VALVE MAY RUB ON
THE BOTTOM OF TANK BLADDER.
IF THIS CONDITION EXISTS, A
41400-111 OR A 74B580071-1003
VALVE MUST BE INSTALLED.

CODE	USABLE ON	MODEL
A	161353 & UP	F/A-18A
B	161354 & UP	F/A-18B

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 8)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5S-R132)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161716 AND UP; ALSO 161353 THRU
161715 AFTER F18 AFC 18 AND F18 AFC 53

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA F18-00055C1)	15 Jul 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA F18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 150 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing (2)	MS29513-222
Packing	MS29513-334
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Tape, Lacing	MIL-T-43435, Type-2, Size-3, Finish-C (CAGE 81349)
Wire Saffty, Nonelectrical	MS20995NC32 (CAGE 96906)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. On F/A-18A, do substeps listed below:
 - (1) Disconnect connector (6, figure 1, detail A).
 - (2) Disconnect adapter (1) at elbow (4).
 - (3) Remove coupling (3).
 - (4) Remove wires from connector (8) and slide wires through adapter (1).
- c. On F/A-18B, do substeps listed below:
 - (1) Disconnect connector (6, figure 1, detail A).
 - (2) Remove coupling (3).
 - (3) Remove wires from connector (8).
- d. Attach a 6 foot length of lacing tape to end of wires.
- e. Remove tube (16, detail C).

- f. Remove cover (15, detail B) and attaching parts.
- g. On 161716 THRU 161761 BEFORE F18 AFC 18, disconnect tube (17, detail D) from nipple (18).
- h. On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18, disconnect tube (17, detail D) from elbow (20).
- i. Disconnect elbow (27) or tube (28) at valve (23) and pull wires through tube (26). Disconnect lacing tape from wires and wrap wires around valve (23).
- j. Remove nut assembly (24) and valve (23).
- k. Tie lacing tape at tube and elbows (4 or 10, detail A).
- l. On 161716 THRU 161761 BEFORE F18 AFC 18, remove nipple (18, detail D) and packing (19) from valve (23).
- m. On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18, remove elbow (20, detail D), nut (21), retainer (22) and packing (19) from valve (23).

2. INSTALLATION.

- a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

- b. Lubricate new packings with petrolatum.
- c. Prepare valve (23, figure 1, detail D), elbow (27) or tube (28), nut assembly (24), bulkhead connector/retainer, retainer (22), nut (21), elbow (20) or nipple (18) and tube (17) for electrical bond (A1-F18AC-LMM-000).
- d. Install packing (25) and nut assembly (24 on valve (23).
- e. Position valve (23) and handtighten nut assembly (24).
- f. On 161716 THRU 161761 BEFORE F18 AFC 18, install packing (19) and nipple (18) on valve (23).

g. On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18, install packing (19), retainer (22), nut (21) and elbow (20) on valve (23).



To prevent damage to wires, use caution when wires are unwrapped from around valve and pulled through conduit.

h. Carefully unwrap wires from around valve (23) and tie to end of lacing tape.

i. Carefully pull lacing tape at dorsal deck until wires are visible.

j. Connect elbow (27) or tube (28) to valve (23). Torque conduit (26) and elbow (27) or tube (28) 70 to 140 inch-pounds. (QA)

k. On 161716 THRU 161761 BEFORE F18 AFC 18, connect tube (17) to nipple (18).

l. On 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18, connect tube (17) to elbow (20).

m. Inspect and remove any foreign objects from below baffle area. (QA)

n. Position cover (15, detail B) and install attaching parts.

o. Install tube (16, detail C).

p. On F/A-18A, do substeps listed below:

(1) Prepare mating surface of adapter (1, detail A) for electrical bond with adapter (5).

(2) Untie lacing tape and wires, then carefully route wires through adapter (1).

NOTE

Wires are interchangeable between pins 5 and 6 of connector (8).

(3) Connect wires to pins 5 and 6 of connector (8).

(4) Make sure connector (8) nut is safetied with lockwire. (QA)

(5) Connect adapter (1) at elbow (4), then install packings (2) and coupling (3).

q. On F/A-18B, do substeps listed below:

NOTE

Wires are interchangeable between pins 5 and 6 of connector (8).

(1) Untie lacing tape and wires, then connect wires to pins 5 and 6 of connector (8, detail A)

(2) Make sure connector (8) nut is lock-wired. (QA)

(3) Install packings (2), coupling (3) and adapter (13).

r. Connect connector (6).

s. Fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

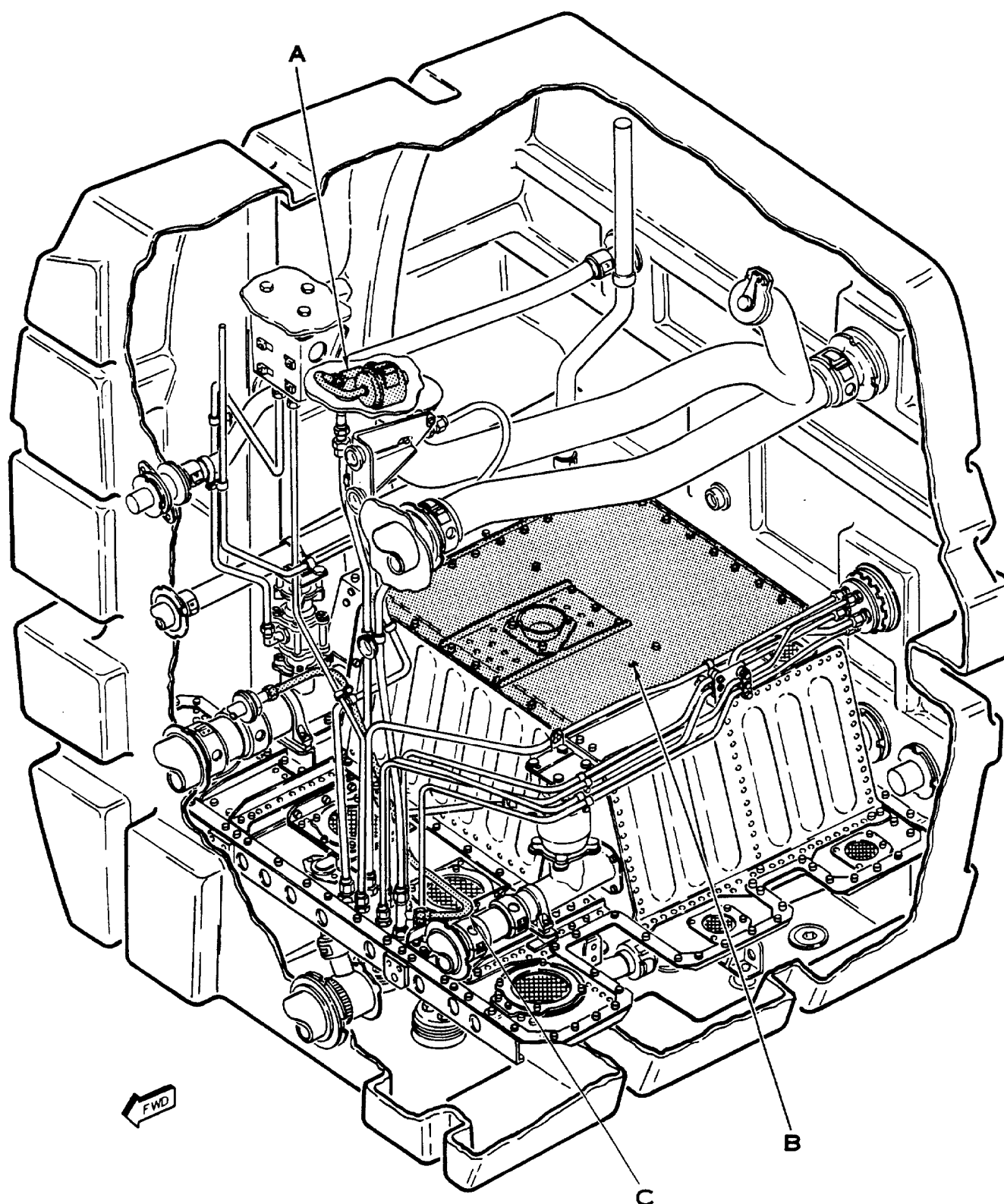
t. Install no. 2 fuel tank access cover (WP005 00).

u. Connect utility and emergency battery connectors per WP013 00.

v. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



11002011

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 1)

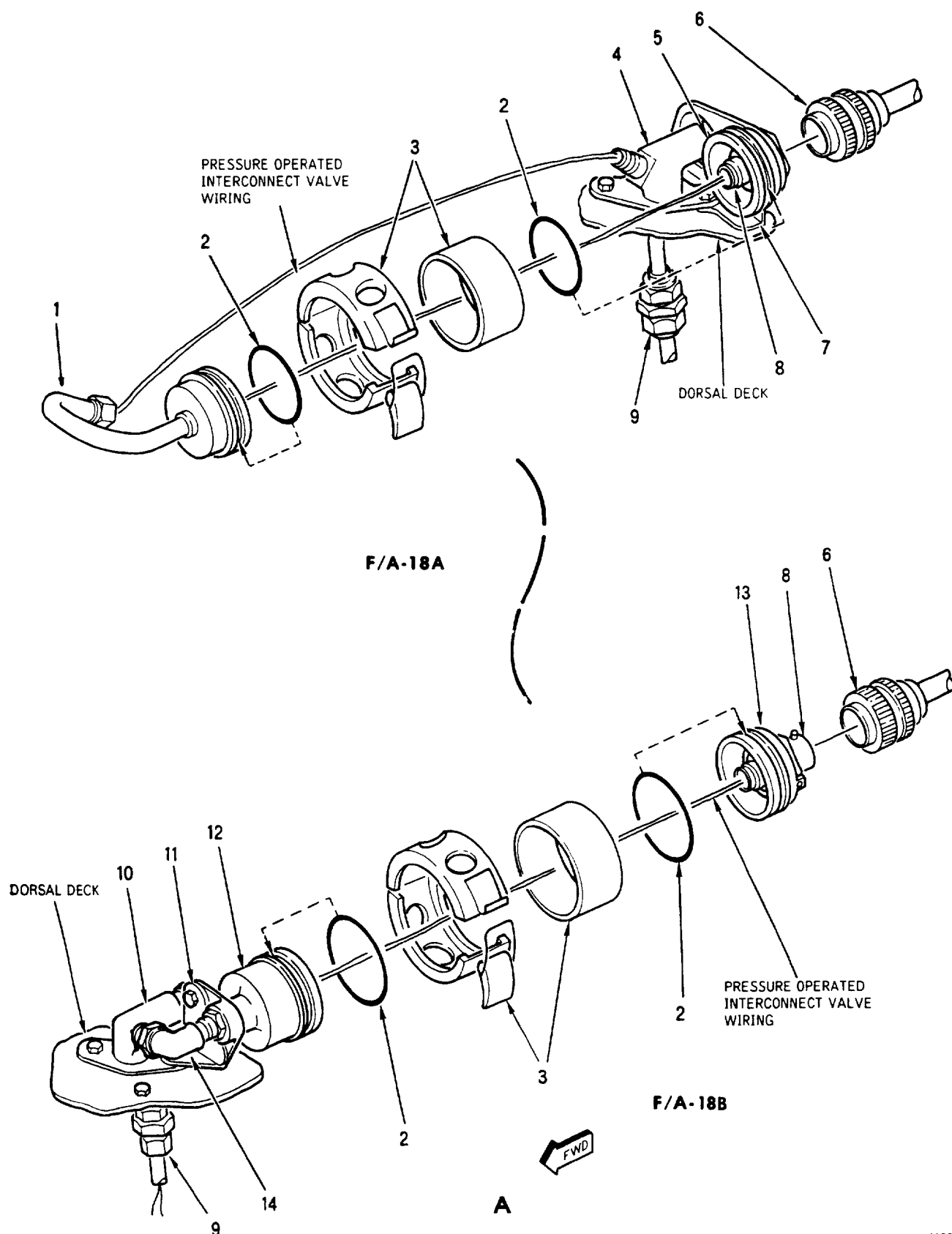
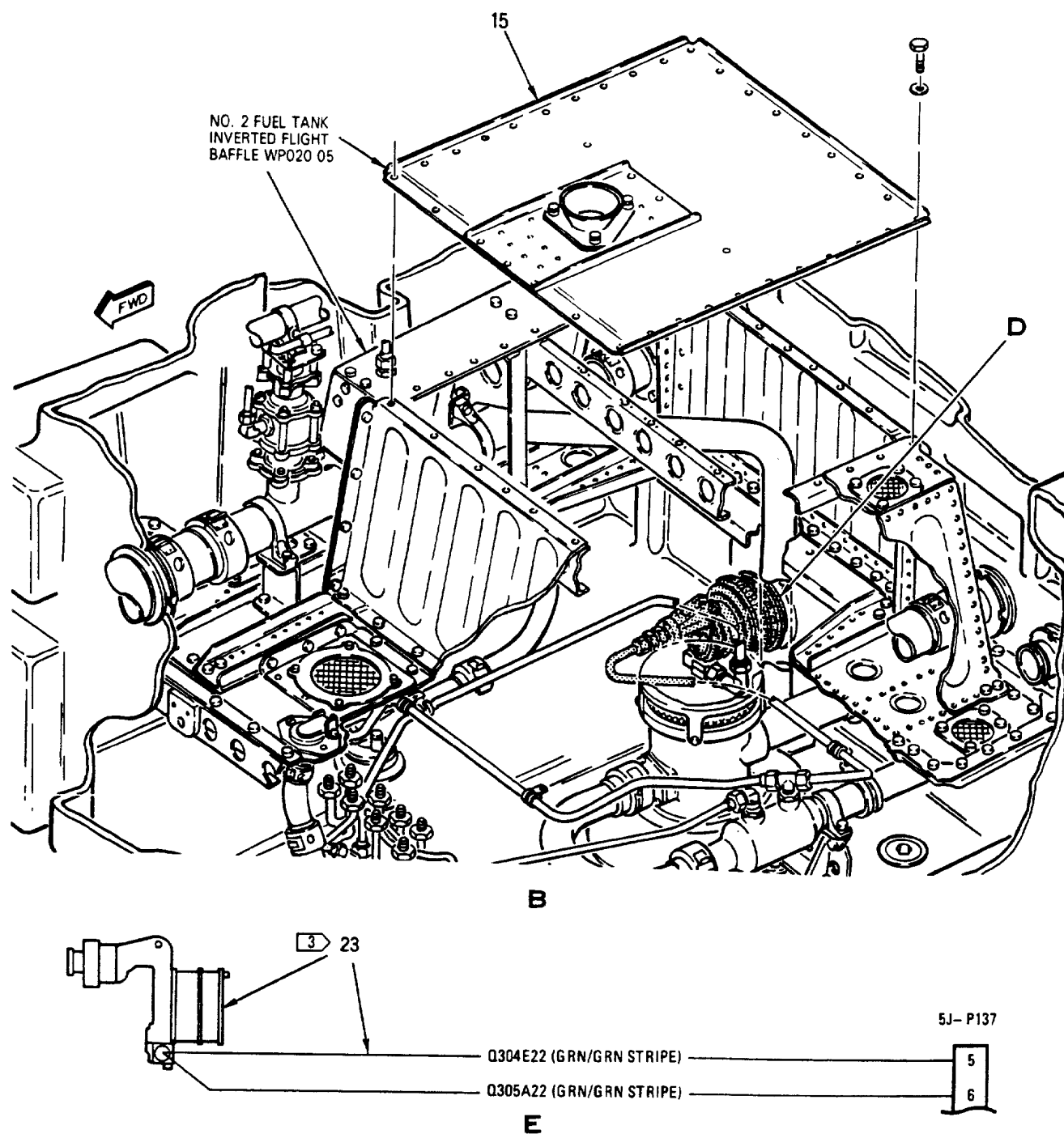
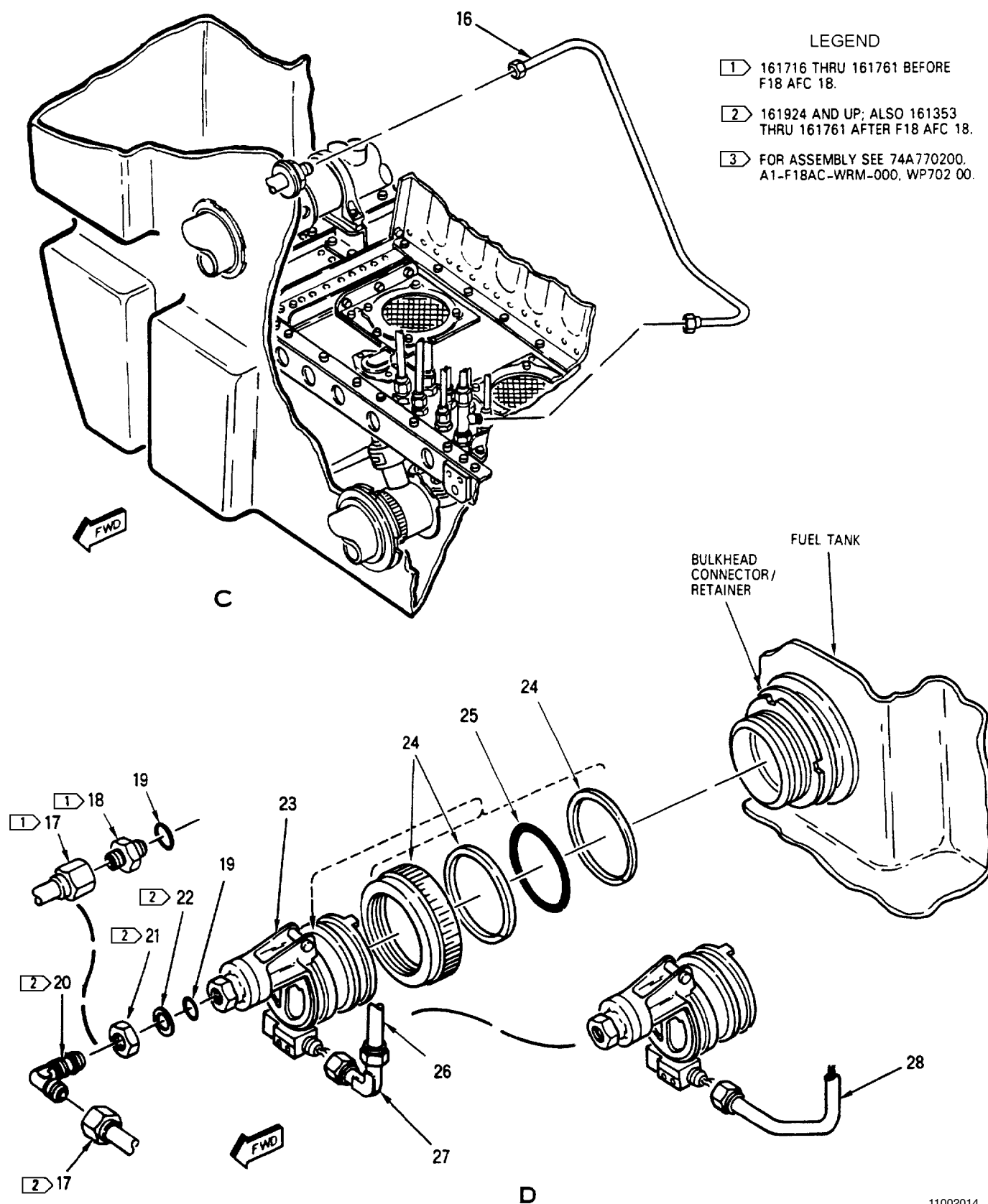


Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 2)



11002013

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 3)



INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE (5S-R132)									
1	74A586694-1001	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (TUBE) (76301)						1	A	XBOZZ
2	MS29513-222	.	PACKING						2		PAOZZ
3	W901K24DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-24D) (INCLUDES SLEEVE)						1		PAOZZ
	14J12-24A	.	COUPLING, CLAMP, GROOVED (24984) (MCDONNELL SPEC 7M765-24D) (INCLUDES SLEEVE)						1		PAOZZ
	W901F24DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M550-24D) (INCLUDES SLEEVE)						1	*	PAOZZ
4	74A586255-1005	.	ELBOW, TUBE - 0.50 IN. LINE, VENT FUEL SYSTEM (76301) (SUPERSEDES 74A586255-1001)						1	A	XBOZZ
5	74A586694-2003	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (76301)						1	A	XBOZZ
6	MS27467T11B35S	.	CONNECTOR, PLUG (5P-P137)						1		PAOZZ
7	74A586244-2093	.	BRACKET (76301)						1	A	XBOZZ
8	KJL7YC103451-3	.	CONNECTOR, RECEPTACLE, ELECTRICAL (71468) (MCDONNELL SPEC 5M1701-11D35PN) (INCLUDES NUT) (5J-P137)						1	*	PAOZZ
	92344-01	.	SEE ABOVE (14283)						1	*	PAOZZ
	AE171411-35PN	.	SEE ABOVE (59976)						1	*	PAOZZ
9	74A586681-1005	.	TUBE ASSEMBLY, METAL - G FEED POSITION SIGNAL, TANK NO. 2 (76301) (SUPERSEDES 74A586681-1001 AND 74A586681-1003)						1		MGOZZ
10	74A586255-1011	.	ELBOW, TUBE - 0.50 IN. LINE, VENT FUEL SYSTEM (76301) (SUPERSEDES 74A586255-1003) AND 74A586255-1007)						1	B	XBOZZ
11	74A586244-2065	.	BRACKET (76301)						1	B	XBOZZ
12	74A586612-2001	.	ADAPTER - ELECTRICAL JUNCTION BOX, NO. 2 FUEL TANK (76301)						1	B	XBOZZ
13	74A586694-2007	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (76301)						1	B	XBOZZ
14	ST7M263V6	.	ELBOW (76301)						1	B	PAOZZ
	ST7M263DA6	.	ELBOW (76301)						1	B*	PAOZZ
	AN6289D6	.	NUT (USE WITH INDEX 14)						1		PAOZZ
15	74A586247-1029	.	COVER ASSY (76301) (FOR REPAIR SEE WP020 05)						1	F	XBOOO
	74A586247-1049	.	COVER ASSY (76301) (FOR REPAIR SEE WP020 05)						1	E	XBOOO
	NAS673V4	.	BOLT (AP)						39		PAOZZ
	AN960JD10L	.	WASHER (AP)						39		PAOZZ
16	74A586299-1005	.	TUBE ASSEMBLY, METAL - SCAV MF, Y406 TEE - Y397 PUMP (76301) (SUPERSEDES 74A586299-1003)						1		MGOZZ
17	74A586827-1003	.	TUBE ASSEMBLY, METAL - PRESS FILTER TEE - Y410, VALVE TEE (76301)						1	C	MGOZZ
	74A587105-1005	.	TUBE ASSEMBLY, METAL - SCAV MOTIVE FLOW, Y406 - Y397 PUMP (76301) (SUPERSEDES 74A587105-1001 AND 74A587105-1003)						1	D	MGOZZ
18	7M637BD-6D	.	NIPPLE, TUBE (76301)						1	C	PAOZZ

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
19	MS29512-06	.	PACKING	.....					1		PAOZZ
20	7M637BW-6D	.	ELBOW, TUBE (76301)	.....					1	D	PAOZZ
21	AN6289D6	.	NUT	.....					1	D	PAOZZ
22	MS28773-06	.	RETAINER	.....					1	D	PAOZZ
23	55-7600-5	.	VALVE, INTERCONNECT, FUEL	.....					1		PAOZZ
			PRESSURE OPERATED (NO. 2								
			FUEL TANK PRESSURE								
			OPERATED INTERCONNECT								
			VALVE) (96736) (MCDONNELL								
			SPEC 74-580110-119) (5S-R132)								
			(REPLACES 55-7600-1, 41400-109 &								
			74B580071-1003)								
	74B580188-1001	.	SEE ABOVE (76301) (REPLACES	.....					1	*	PAOZZ
			55-7600-1, 41400-109 &								
			74B580071-1003)								
	41400-111	.	SEE ABOVE (04192) (MCDONNELL	.....					1	*	PAOZZ
			SPEC 74-580110-111) (REPLACES								
			55-7600-1, 41400-109 & 74B580071-1003)								
	74B580071-1003	.	SEE ABOVE (76301) (REPLACED	.....					1	*	PAOZZ
			BY 41400-111 OR 55-7600-5) (USE								
			UNTIL EXHAUSTED)								
	41400-109	.	SEE ABOVE (04192) (MCDONNELL	.....					1	*	PAOZZ
			SPEC 74-580110-109 (REPLACED								
			BY 41400-111, OR 55-7600-S) (USE								
			UNTIL EXHAUSTED)								
24	W702-40D	.	NUT ASSEMBLY, TUBE COUPLING	.....					1	*	PAOZZ
			(79326) (MCDONNELL SPEC								
			ST7M191-40D) (INCLUDES NUT								
			AND 2 WASHERS)								
	12H72-40D	.	SEE ABOVE (24984)	.....					1	*	PAOZZ
25	MS29513-334	.	PACKING	.....					1		PAOZZ
26	74A586680-1005 ¢	.	TUBE ASSEMBLY, METAL - GRAVITY	.....					1	C	MGOZZ
			FEED SIGNAL BELOW BAFFLE (76301)								
	74A587122-1003 ¢	.	TUBE ASSEMBLY, METAL - GRAVITY	.....					1	D	MGOZZ
			FEED SIGNAL, TANK 2 (76301)								
27	7M148V6 ¢	.	ELBOW, TUBE (76301)	.....					1		PAOZZ
28	74A587122-1005 ¢	.	TUBE ASSEMBLY, METAL - GRAVITY	.....					1		MGOZZ
			FEED SIGNAL BELOW BAFFLE (76301)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

¢ USE 74A587122-1005 ONLY AS
REPLACEMENT PART

CODE	USABLE ON	MODEL
A	161716 & UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	F/A-18A
B	161719 & UP; ALSO 161354 THRU 161714 AFTER F18 AFC 18 AND F18 AFC 53	F/A-18B

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		C						161716 THRU 161761 BEFORE F18 AFC 18 AND F18 AFC 53		F/A-18A/B	
		D						161924 THRU 163145; ALSO 161353 THRU 161761 AFTER F18 AFC 18 AND F18 AFC 53		F/A-18A/B	
		E						161924 & UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18		F/A-18A/B	
		F						161716 THRU 161761		F/A-18A/B	

Figure 1. No. 2 Fuel Tank Pressure Operated Interconnect Valve (5S-R132) (Sheet 7)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**NO. 2 FUEL TANK GRAVITY FEED CHECK VALVE
(5VAP600)**

INTERNAL FUEL TRANSFER SYSTEM

Title	WP Number
No. 2 Fuel Tank Gravity Feed Check Valve - 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53	111 01
No. 2 Fuel Tank Gravity Feed Check Valve - 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	111 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 2 FUEL TANK GRAVITY FEED CHECK VALVE (5VAP600)

INTERNAL FUEL TRANSFER SYSTEM

**EFFECTIVITY: 161353 THRU 161715
BEFORE F18 AFC 18 AND F18 AFC 53**

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000

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Record of Applicable Technical Directives

None

Support Equipment Required

None

1. REMOVAL.

a. Do general preparation for removal (WP01300).

b. Disconnect tube (4, figure 1, detail A).

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29513-334
Petrolatum, Technical	VV-P-236 (CAGE 81348)



Petrolatum, Technical

c. Remove screen (3) and attaching parts.

2

d. Loosen and remove bolts (1) and washers enough to remove web (6). Remove web.

e. Remove valve (7, detail B) nut assembly (8), and packing (9).

2. INSTALLATION.

a. Do a general preparation for installation (WP013 00).

b. Prepare mating surfaces of valve (7, figure 1, detail B) and bulkhead connector for electrical bond (A1-F18AC-LMM-000).



Petrolatum, Technical

2

c. Lubricate new packing (9) with petrolatum and install packing, nut assembly (8) and valve (7). Tighten nut assembly handtight.

d. Install web (6, detail A) between beam and fuel tank, then install bolts (1) and washers.

e. Install screen (3) and attaching parts.

f. Connect tube (4) to nipple (2).

g. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

h. Install no. 2 fuel tank access cover (WP005 00).

i. Connect utility and emergency battery connectors (WP013 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has date required for identifying and ordering parts. The manual introduction has more information on IPB data.

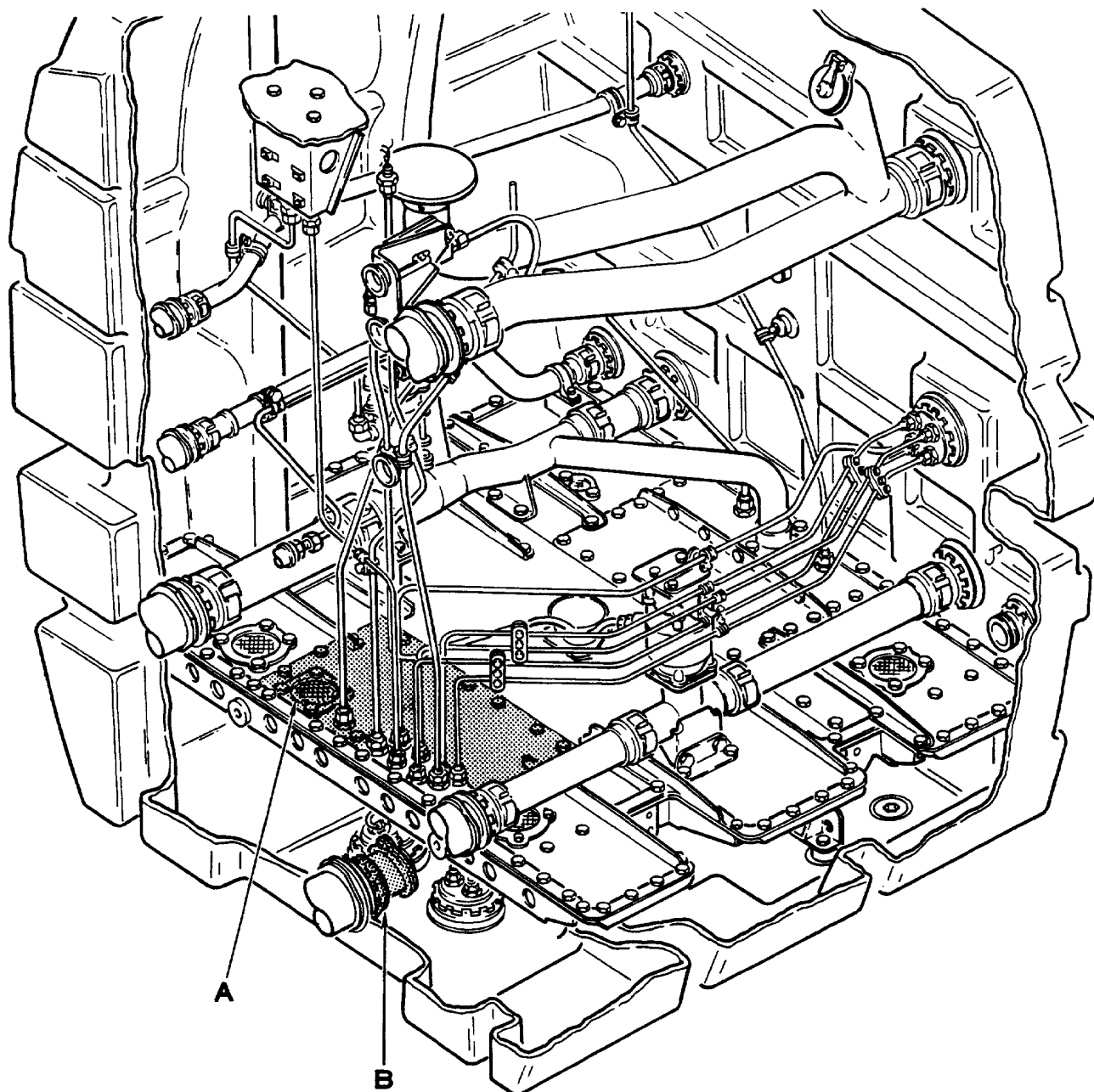


Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 1)

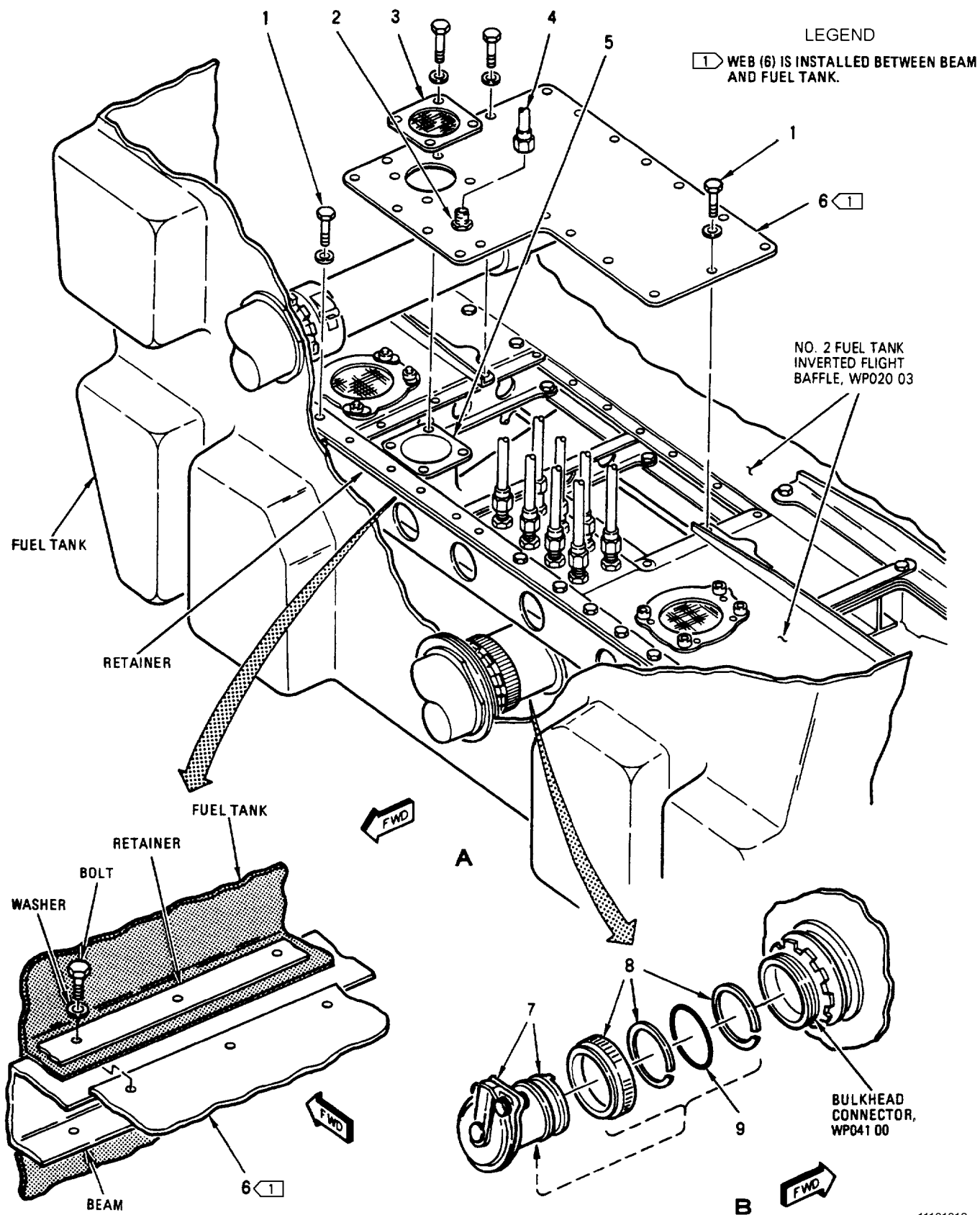


Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 2 FUEL TANK GRAVITY FEED CHECK									
		VALVE (5VAP600)									
1	NAS673V5	.	BOLT						AR		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 1)						AR		PAOZZ
2	7M637BT-6D	.	NIPPLE, TUBE (76301)						1		PAOZZ
	AN832-6D	.	NIPPLE						1	*	PAOZZ
3	74A586637-1003	.	SCREEN ASSY - INVERTED FLIGHT						1		XBOZZ
		.	BAFFLE, TANKS 2 & 3 (76301)								
	NAS673V6	.	BOLT (AP)						4		PAOZZ
	AN960JD10L	.	WASHER (AP)						4		PAOZZ
4	74A586241-1001	.	TUBE ASSEMBLY, METAL - VENT,						1		MGOZZ
		.	FWD, INVERTED FLT COMPT (76301)								
5	74A586239-1007 +	.	TUBE ASSEMBLY, METAL - SURGE						1		XBOGG
		.	BAF, INVERTED FLT, TK NO. 2 (76301)								
	74A586239-1007NR1 +	.	TUBE ASSEMBLY, METAL - SURGE						1		XBODD
		.	BAF, INVERTED FLT, TK NO. 2 (76301)								
6	74A586204-2421	.	WEB, CENTER, FWD (76301)						1		MGOZZ
7	74A585002-2003	.	FEED ASSEMBLY, FUEL (NO. 2 FUEL						1		PAOZZ
		.	TANK GRAVITY FEED CHECK								
		.	VALVE) (76301) (5VAP600)								
	NAS1802-06-7	.	SCREW (USE WITH INDEX 7)						2		PAOZZ
	AN960JD6L	.	WASHER (USE WITH INDEX 7)						4		PAOZZ
	NAS1291C06M	.	NUT (USE WITH INDEX 7)						2		PAOZZ
8	W702-40D	.	NUT ASSEMBLY, TUBE COUPLING						1	*	PAOZZ
		.	(79326) (MCDONNELL SPEC								
		.	ST7M191-40D) (INCLUDES NUT								
		.	AND 2 WASHERS)								
	12H72-40D	.	SEE ABOVE (24984)						1	*	PAOZZ
9	MS29513-334	.	PACKING						1		PAOZZ
			ALTERNATE OR EQUIVALENT								
			PARTS. (WP002 00)								
		.	+ 74A586239-1007 TUBE MAY BE								
		.	USED IF THE BOTTOM END OF								
		.	TUBE IS 0.40 INCH TO 1.50								
		.	INCHES FROM BOTTOM OF FUEL								
		.	TANK. IF CLEARANCE IS LESS								
		.	THAN 0.40 INCH,								
		.	74A586239-1007NR1 TUBE MUST								
		.	BE USED								

Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 2 FUEL TANK GRAVITY FEED CHECK VALVE
(5VAP600)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161716 AND UP;
ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53

Reference Material

Fuel System	A1-F18AC-460-300
No. 2 Fuel Tank Access Cover	WP005 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Line Maintenance Procedures	A1-F18AC-LMM-000

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Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F18-00055C1)	15 Jul 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and (ECP MDA-F18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

None

**Materials Required**

Nomenclature	Specification or Part Number
Packings (2)	MS29513-214
Packing	MS29513-334
Petrolatum, Technical	VV-P-236 (CAGE 81348)

Petrolatum, Technical

2

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Remove tube (7, figure 1, detail C).
- c. Remove bolts (1, detail A), gasket (3) and guide (2).
- d. Remove bolts on cover (6, detail B) as required to remove panel (4).
- e. Remove panel (4) and attaching parts and remove doubler panel (5) and attaching parts.
- f. Remove coupling (9, detail D).
- g. Disconnect nut assembly (11) and remove valve (12).
- h. Remove packings (8 and 12).

2. INSTALLATION.

- a. Do a general preparation for installation (WP013 00).

- b. Lubricate new packings with petrolatum.
- b1. Prepare valve (13, figure 1, detail D), tube (10), nut assembly (11) and bulkhead connector/retainer for electrical bonding (A1-F18AC-LMM-000).
- c. Install packings (8 and 12) and nut assembly (11) on valve (13).
- d. Position valve (13) in fuel tank bulkhead connector and install nut assembly (11). Tighten nut assembly handtight.
- e. Install coupling (9).
- f. Install panels (4 and 5, detail B) and attaching parts.
- g. Install bolts on cover (6).
- h. Install tube (7, detail C).
- i. Position guide (2, detail A) and install gasket (3), bolts (1) and attaching parts.
- j. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)
- k. Install no. 2 fuel tank access cover (WP005 00).
- l. Connect utility and emergency battery connectors per WP013 00.

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

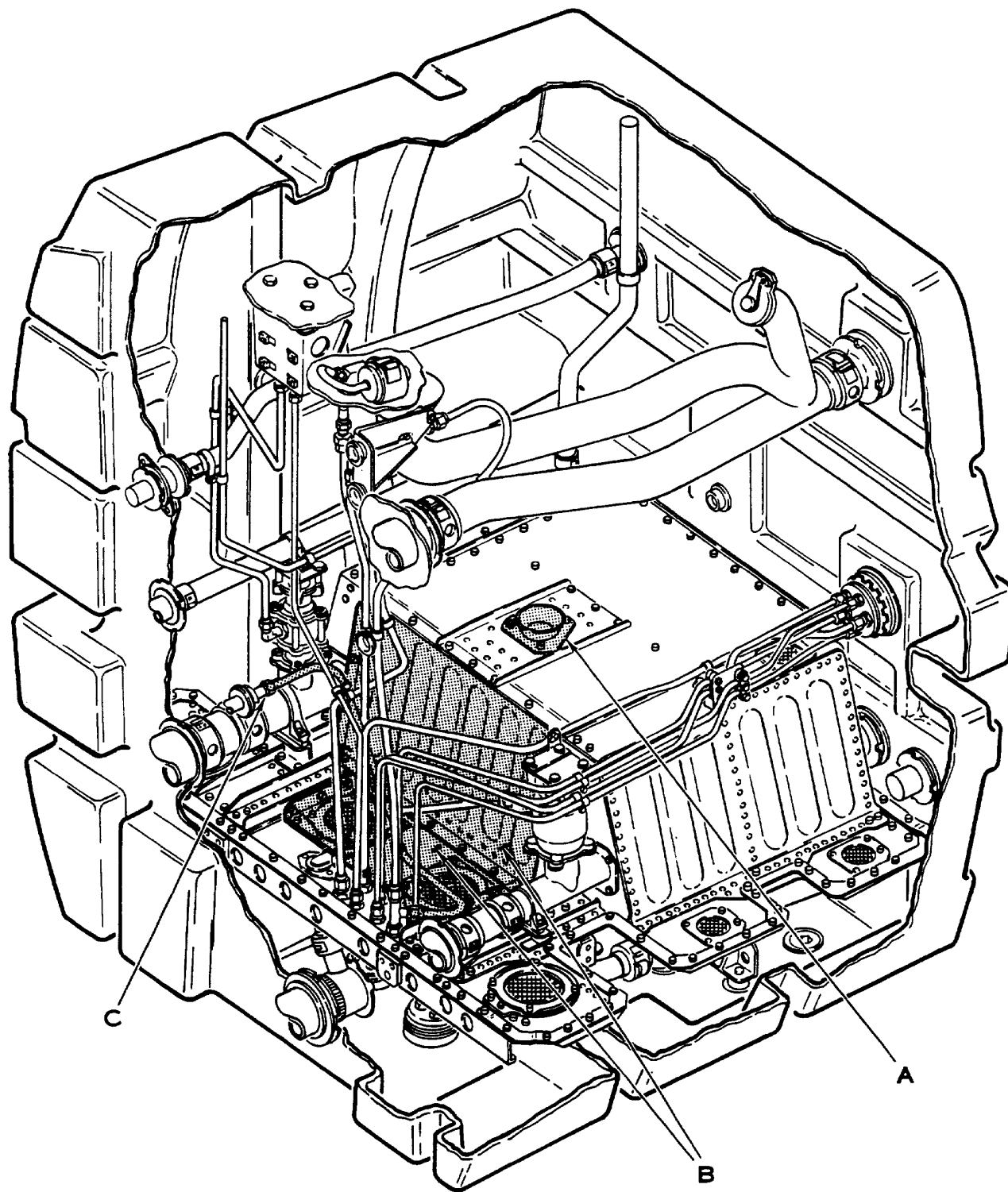
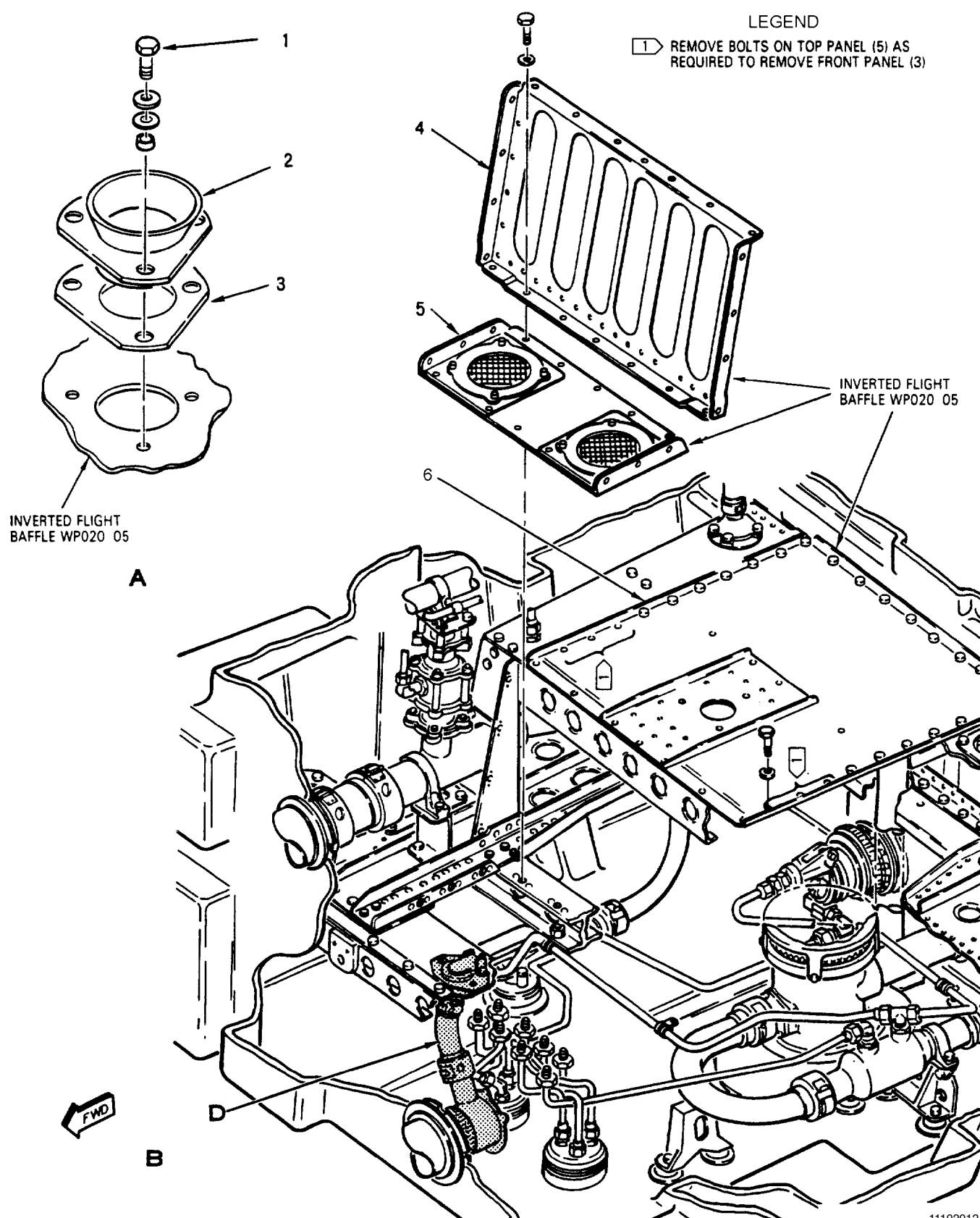


Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 1)



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Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 2)

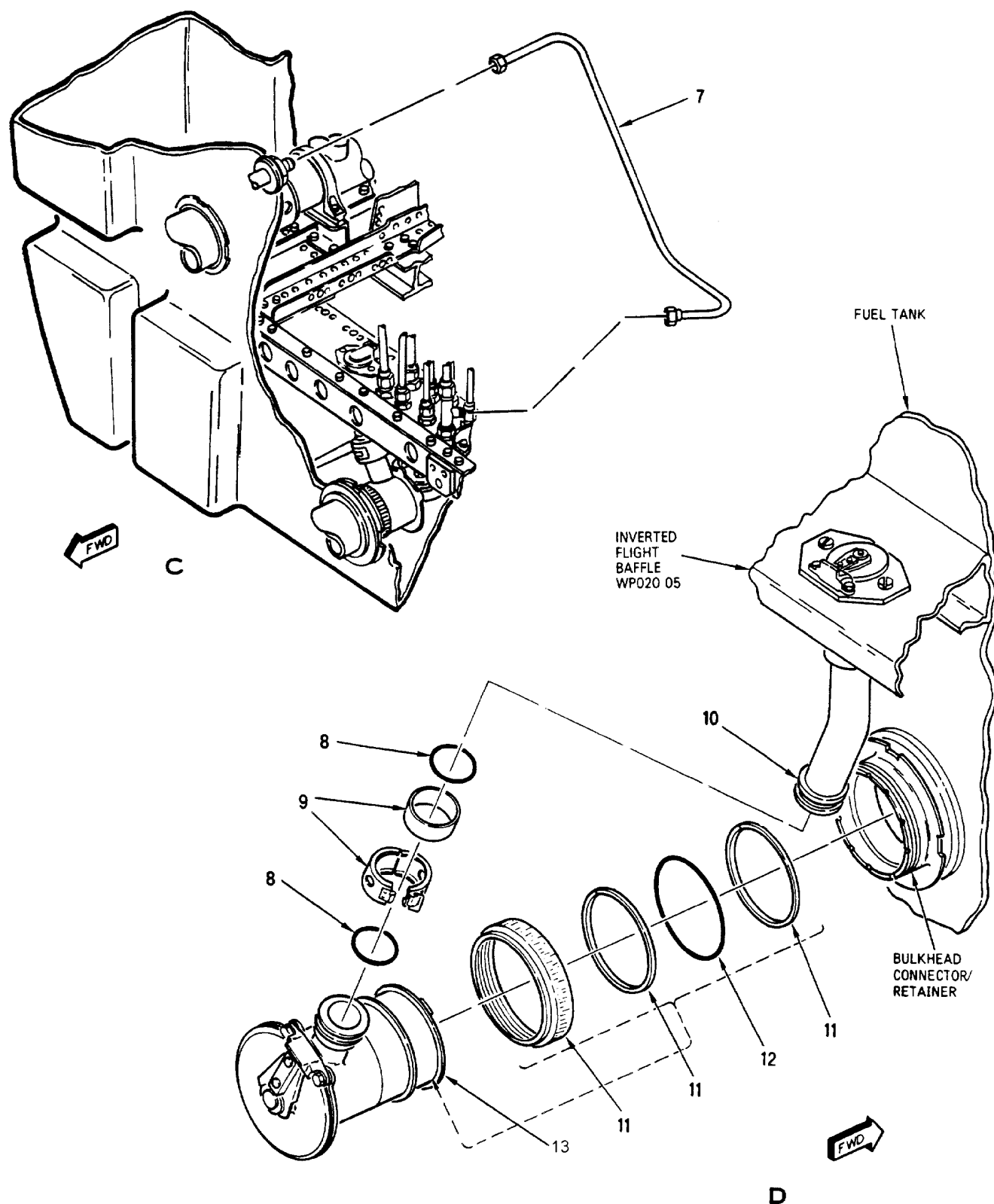


Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		NO. 2 FUEL TANK GRAVITY FEED			
		CHECK VALVE (5VAP600)			
1	NAS673V4	. BOLT	3	A	PAOZZ
	NAS673V5	. BOLT	3	B	PAOZZ
	4M36-01016	. WASHER (76301) (USE WITH INDEX 1)	6		PAOZZ
	NAS43DD3-8	. SPACER (USE WITH INDEX 1)	3	A	PAOZZ
	NAS43DD3-11	. SPACER (USE WITH INDEX 1)	3	B	PAOZZ
2	74A586297-2001	. GUIDE, PROBE - FUEL QTY,	1		XBOZZ
		TANK 2 & 3 (76301)			
3	74A586556-2001	. GASKET, PROBE GUIDE - RAISED	1	B	XBOZZ
		INVERTED BAFFLE TK 2 & 3 (76301)			
4	74A586246-2011	. PANEL ASSY, FWD (FRONT PANEL	1		XBOOO
		(76301) (FOR REPAIR SEE WP020 05)			
	NAS673V4	. BOLT (AP)	AR		PAOZZ
	AN960JD10L	. WASHER (AP)	AR		PAOZZ
5	74A586247-1061	. DOUBLER PANEL (76301)	1		XBOOO
		(SUPERSEDES 74A586247-1013)			
		(FOR REPAIR SEE WP020 05)			
	NAS673V4	. BOLT (AP)	AR		PAOZZ
	AN960JD10L	. WASHER (AP)	AR		PAOZZ
6	74A586247-1029	. COVER ASSY (TOP PANEL) (76301)	1	A	XBOOO
		(FOR REPAIR SEE WP020 05)			
	74A586247-1049	. COVER ASSY (76301) (FOR REPAIR	1	B	XBOOO
		SEE WP020 05)			
	NAS673V4	. BOLT (AP)	AR		PAOZZ
	AN960JD10L	. WASHER (AP)	AR		PAOZZ
7	74A586299-1005	. TUBE ASSEMBLY, METAL - SCAV MF,	1		MGOZZ
		Y406 TEE - Y397 PUMP (76301)			
		(SUPERSEDES 74A586299-1003)			
8	MS29513-214	. PACKING	2		PAOZZ
9	W901K16DE	. COUPLING, CLAMP, GROOVED	1		PAOZZ
		(79326) (MCDONNELL SPEC			
		7M765-16D) (INCLUDES SLEEVE)			
	14J12-16A	. COUPLING, CLAMP, GROOVED	1		PAOZZ
		(24984) (MCDONNELL SPEC			
		7M765-16D) (INCLUDES SLEEVE)			
	W901F16DE	. COUPLING, CLAMP, GROOVED	1	*	PAOZZ
		(79326) (MCDONNELL SPEC			
		7M550-16D) (INCLUDES SLEEVE)			
10	74A586252-1005	. TUBE ASSEMBLY, METAL - VENT,	1	*	XBOZZ
		INVERTED FLT COMPT, TK 2 (76301)			
11	W702-40D	. NUT ASSEMBLY, TUBE COUPLING	1	*	PAOZZ
		(79326) (MCDONNELL SPEC			
		ST7M191-40D) (INCLUDES NUT			
		AND 2 WASHERS)			
	12H72-40D	. SEE ABOVE (24984)	1	*	PAOZZ
12	MS29513-334	. PACKING	1		PAOZZ
13	74A585002-2005	. FEED, ASSEMBLY, FUEL (NO. 2	1		PAOZZ
		FUEL TANK GRAVITY FEED			
		CHECK VALVE) (76301) (5VAP600)			
	NAS1802-06-7	. SCREW (USE WITH INDEX 13)	2		PAOZZ
	AN960JD6L	. WASHER (USE WITH INDEX 13)	2		PAOZZ
	NAS1291C06M	. NUT (USE WITH INDEX 13)	2		PAOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

Figure 1. No. 2 Fuel Tank Gravity Feed Check Valve (5VAP600) (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			

CODE	USABLE ON	MODEL
A	161716 THRU 161761 BEFORE F18 AFC 18 AND F18 AFC 53	F/A-18A/B
B	161924 & UP; ALSO 161353 THRU 161761 AFTER F18 AFC 18 AND F18 AFC 53	F/A-18A/B

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
NO. 3 FUEL TANK TRANSFER SHUTOFF VALVE
(5VAP605)
INTERNAL FUEL TRANSFER SYSTEM

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F/A-1800055C1)	15 Jul 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing	MS29513-229
Packing (6)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Remove tube (1, detail A, figure 1 or 2), coupling (3), and packings (2).
- c. On 161353 THRU 161715 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53, do substeps below:
 - (1) Disconnect tube (15, figure 1, detail B) at nipple (14).
 - (2) Remove bolts (4), washers, and spacers (6).
 - (3) Remove bolts (10), washers, valve (8), and packing (12).
 - (4) Remove nipple (14) and packing (13).
- d. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53, do substeps below:

(1) Remove no. 3 fuel tank dive vent check valve (figure 2, detail A) and coupling (3).

(2) Remove probe guide (9, detail B), gasket (8), bolts (5, 6 and 7), and attaching parts.

(3) Disconnect tube (14, detail C).

(4) Remove valve (15), packing (17) and attaching parts.

(5) Remove deflector (10) and attaching parts.

(6) Remove nipple (13) and packing (12).

2. INSTALLATION.

a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. On 161353 THRU 161715 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53, do substeps below:

(1) Install packing (13, Figure 1, detail B) and nipple (14).

(2) Prepare bolts (10) and washers for electrical bonding (A1-F18AC-LMM-000).

(3) Install packing (12), valve (8), bolts (10) and washers.

(4) Prepare bolts (4) for electrical bond (A1-F18AC-LMM-000).

(5) Position bracket (5) and install bolts (4), washers, and spacers (6).

(6) Connect tube (15) to nipple (14).

d. On 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53, do substeps below:

(1) Install packing (12, figure 2, detail C) and nipple (13).

(2) Prepare deflector (10) attaching parts (bolts) for electrical bonding (A1-F18AC-LMM-000).

(3) Install deflector (10) and attaching parts.

(4) Prepare valve (15) attaching parts (bolts) for electrical bonding (A1-F18AC-LMM-000).

(5) Install packing (17), valve (15), and attaching parts.

(6) Connect tube (14) to nipple (13).

(7) Install gasket (8, detail B), probe guide (9), bolts (5, 6, and 7), and attaching parts.

e. Install dive vent check valve (detail A), packings (2), and couplings (3).

f. Install tube (1), packings (2), and coupling (3).

g. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

h. Install access cover (WP006 00).

i. Connect both utility and emergency battery connectors (WP013 00).

j. Do internal fuel transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

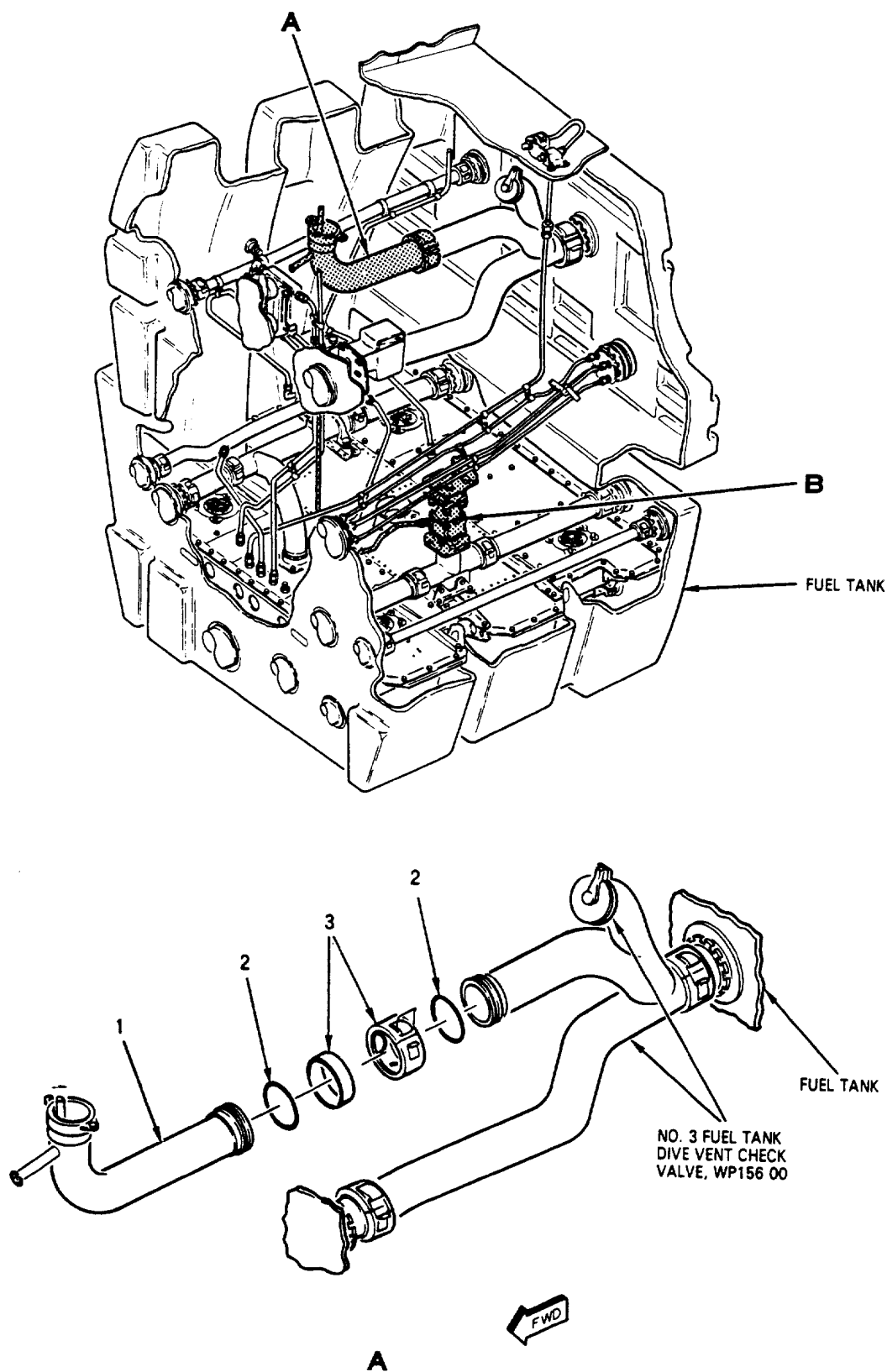
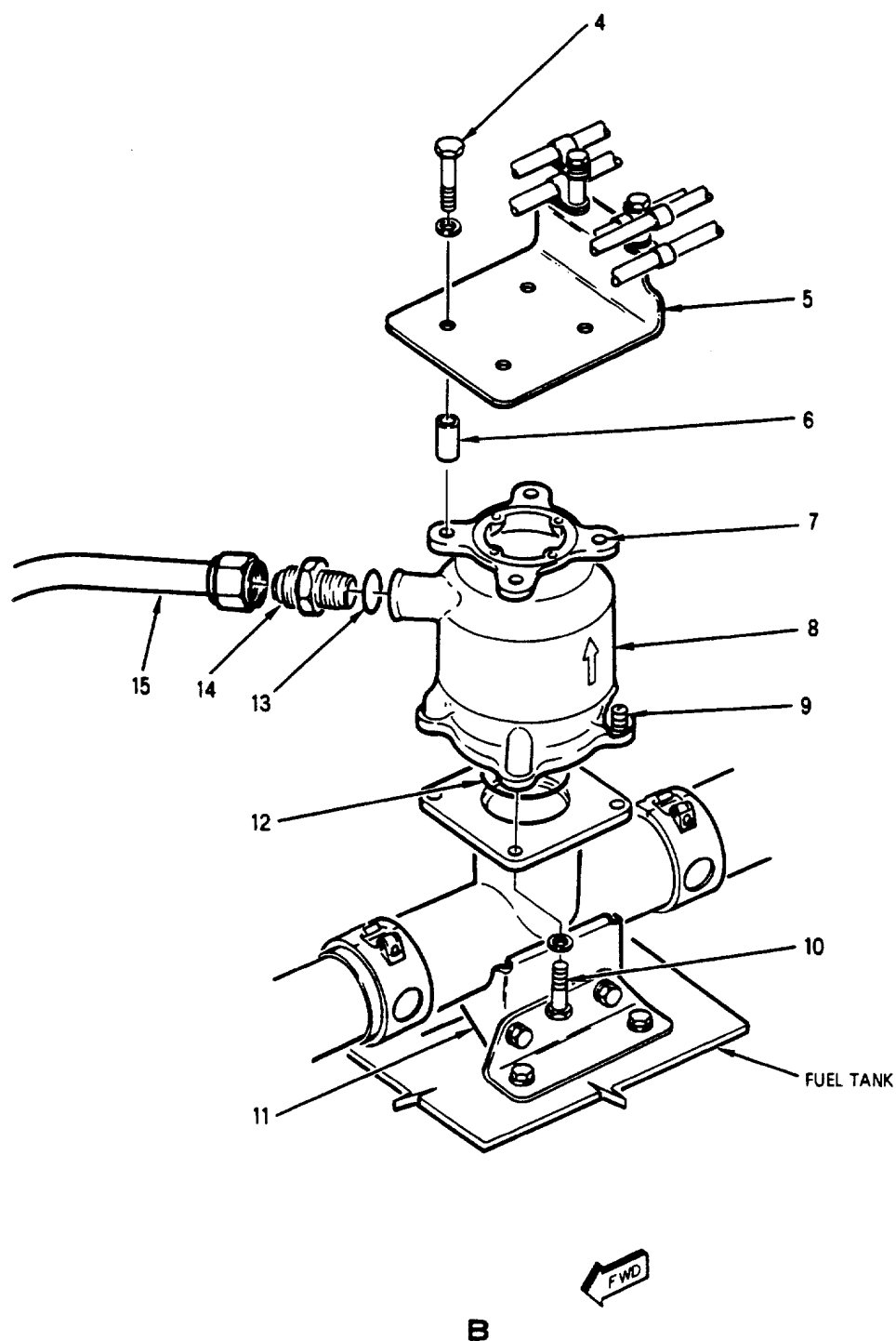


Figure 1. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161353 THRU 161715
BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 1)

11200101



11200102

Figure 1. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161353 THRU 161715
BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 3 FUEL TANK TRANSFER									
		SHUTOFF VALVE (5VAP605)									
		161353 THRU 161715 BEFORE									
		F/A-18 AFC 18 AND F/A-18 AFC 53									
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT,						1		XBOOO
			FUEL TANK NO. 3 (76301)								
	NS103597-02	.	NUT, SELF-LOCKING, PLATE						2	*	PAOZZ
			(80539) (MCDONNELL SPEC								
			ST3M470C3M) (USE WITH INDEX 1)								
	F10965-1-3	.	NUT, SELF-LOCKING, PLATE						2	*	PAOZZ
			(72962) (MCDONNELL SPEC								
			ST3M470C3M) (USE WITH INDEX 1)								
	F29339-01-3	.	NUT, SELF-LOCKING, PLATE (15653)						2	*	PAOZZ
			(MCDONNELL SPEC ST3M470C3M)								
			(USE WITH INDEX 1)								
	MS20426AD3 #	.	RIVET (AP)						2		-
2	MS29513-230	.	PACKING						2		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M675-40D) (INCLUDES SLEEVE)								
	14J12-40A	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(24984) (MCDONNELL SPEC								
			7M765-40D) (INCLUDES SLEEVE)								
	W901F40DE	.	COUPLING, CLAMP, GROOVED						1	*	PAOZZ
			(79326) (MCDONNELL SPEC								
			7M565-40D) (INCLUDES SLEEVE)								
4	NAS674V18	.	BOLT						4		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 4)						4		PAOZZ
5	74A586309-2017	.	BRACKET (76301)						1		MGOZZ
6	NAS43DD4-76	.	SPACER						4		PAOZZ
7	MS21209F4-15	.	INSERT						4		PAOZZ
8	2760008-117	.	VALVE, SHUTOFF - FUEL TRANSFER						1		PAOZZ
			(NO. 3 FUEL TANK TRANSFER								
			SHUTOFF VALVE) (92003)								
			(MCDONNELL SPEC								
			74-580163-117) (5VAP605)								
			(REPLACES 2760008-115,								
			2760008-111 & 2760008-109)								
	2760008-115	.	VALVE, SHUTOFF - FUEL TRANSFER						1	*	PAOZZ
			(NO. 3 FUEL TANK TRANSFER								
			SHUTOFF VALVE) (92003)								
			(MCDONNELL SPEC								
			74-580163-115) (5VAP605)								
			(USE UNTIL EXHAUSTED)								
	2760008-111	.	VALVE, SHUTOFF - FUEL TRANSFER						1	*	PAOZZ
			(NO. 3 FUEL TANK TRANSFER								
			SHUTOFF VALVE) (92003)								
			(92003) (MCDONNELL SPEC								
			74-580163-111) (5VAP605)								
			(USE UNTIL EXHAUSTED)								
	2760008-109	.	SEE ABOVE (MCDONNELL SPEC						1	*	PAOZZ
			74-580163-105) (USE UNTIL EXHAUSTED)								
9	MS21209F4-10	.	INSERT						4		PAOZZ
10	NAS674V5	.	BOLT						4		PAOZZ
	AN960JD416	.	WASHER (USE WITH INDEX 10)						4		PAOZZ
11	74A586286-1003	.	TEE ASSY, TRANSFER PUMP, TANK						1		XBOOO
			NO. 2 (76301) (SUPERSEDES								
			74A586266-1001)								
	NS103597-02	.	NUT, SELF-LOCKING, PLATE (08539)						4	*	PAOZZ
			(MCDONNELL SPEC ST3M470C3M)								
			(USE WITH INDEX 11)								

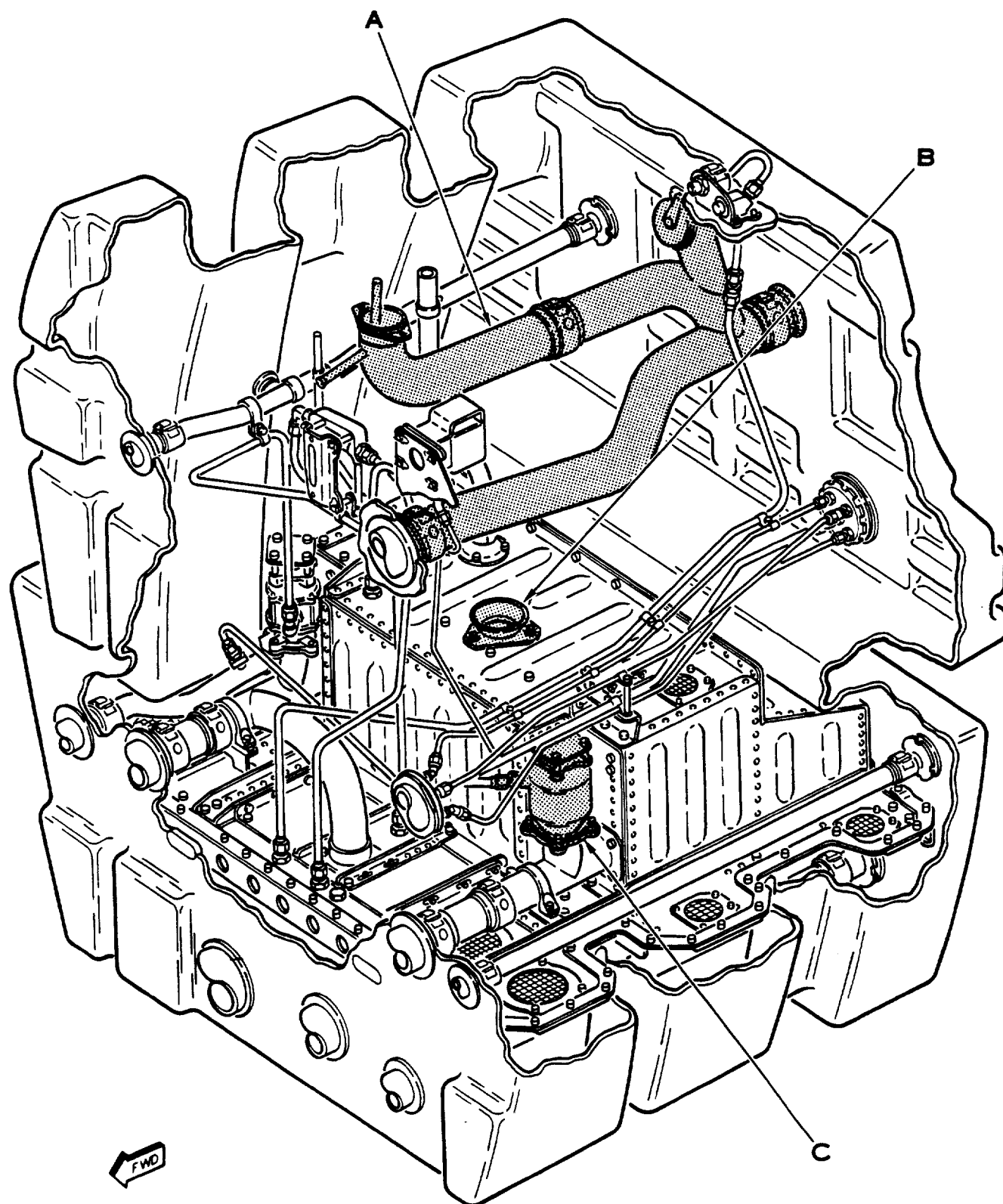
Figure 1. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161353 THRU 161715 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
	F10965-1-3	.						NUT, SELF-LOCKING, PLATE (72962) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 11)	4	*	PAOZZ
	F29339-01-3	.						NUT, SELF-LOCKING, PLATE (15653) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 11)	4	*	PAOZZ
	MS20426AD3 #	.						RIVET (AP)	2		-
12	MS29513-229	.						PACKING	1		XBOZZ
13	MS29512-06	.						PACKING	1		PAOZZ
14	7M637BD-6D	.						NIPPLE, TUBE (76301)	1		PAOZZ
15	74A586345-1001	.						TUBE ASSEMBLY, METAL - FUEL LEVEL SENSOR, TK NO. 3 (76301)	1		AGOZZ

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

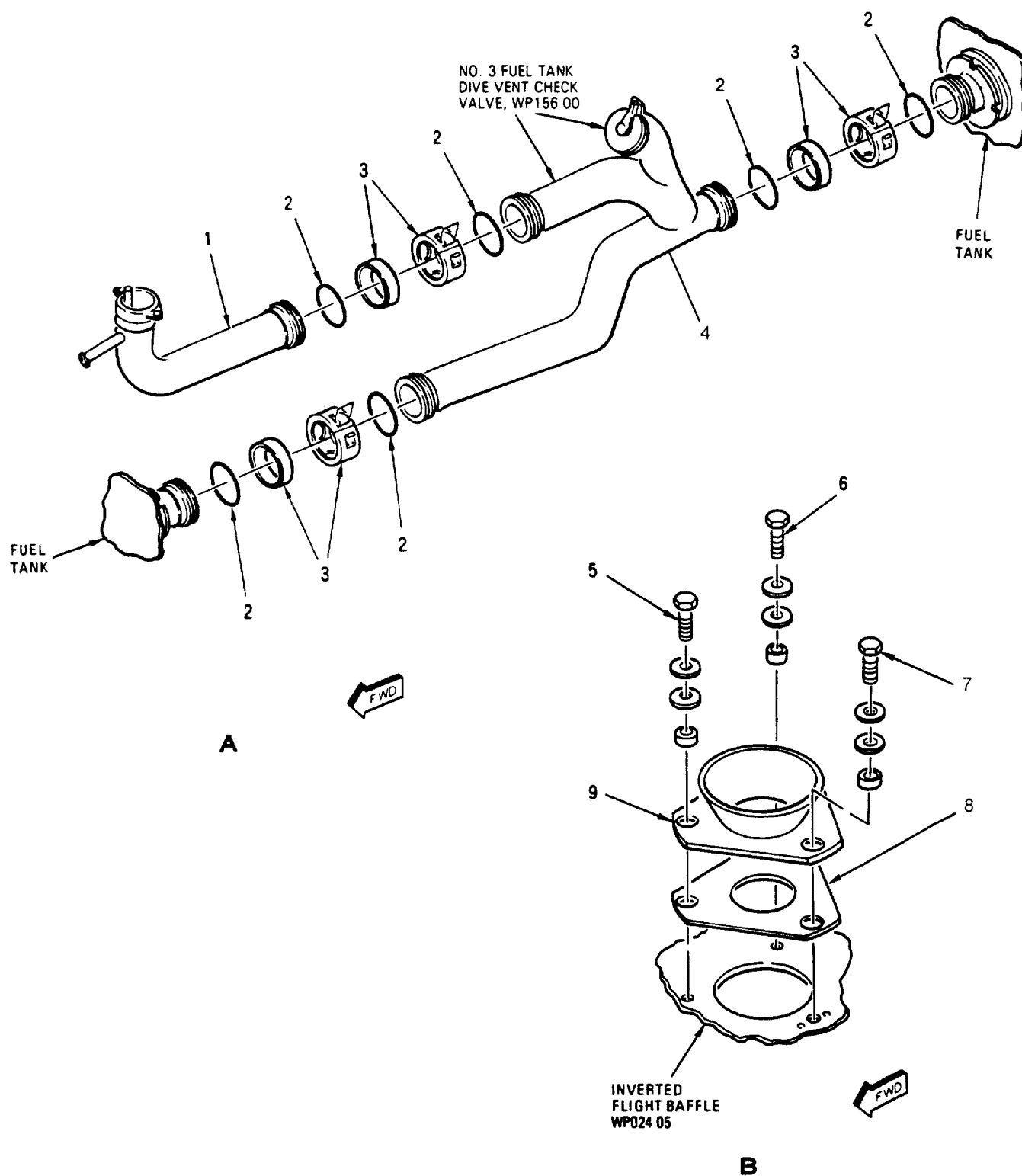
LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

**Figure 1. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161353 THRU 161715
BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 4)**



11200201

Figure 2. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 1)



11200202

Figure 2. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 2)

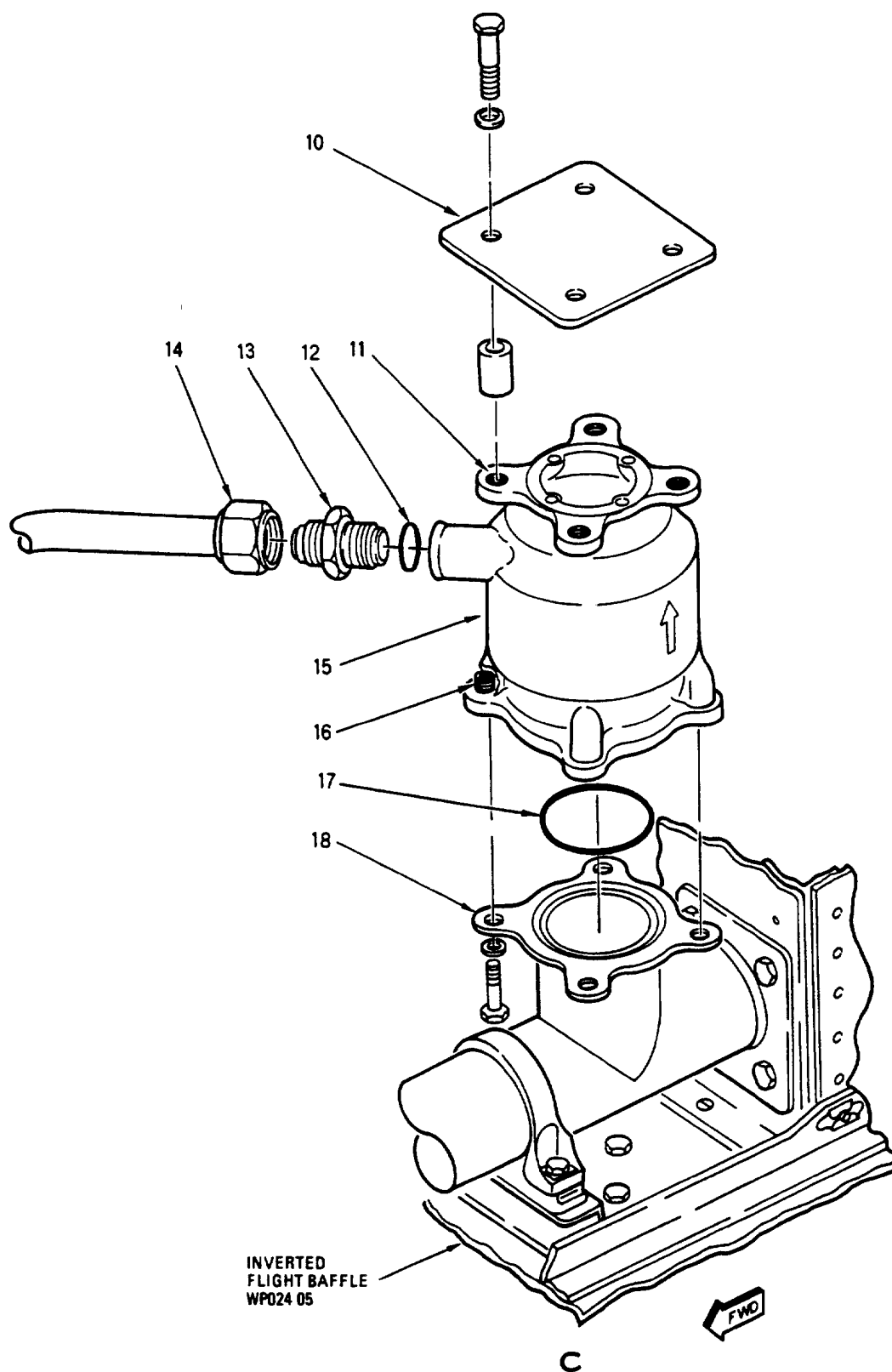


Figure 2. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 3)

INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6			
		NO. 3 FUEL TANK TRANSFER SHUTOFF.....								
		VALVE (5VAP605) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53								
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT, FUEL					1		XBOOO
			TANK NO. 3 (76301)							
	NS103597-02	.	NUT, SELF-LOCKING, PLATE.....					2	*	PAOZZ
			(80539) (MCDONNELL SPEC							
			ST3M470C3M) (USE WITH INDEX 1)							
	F10965-1-3	.	NUT, SELF-LOCKING, PLATE.....					2	*	PAOZZ
			(72962) (MCDONNELL SPEC							
			ST3M470C3M) (USE WITH INDEX 1)							
	F29339-01-3	.	NUT, SELF-LOCKING, PLATE.....					2	*	PAOZZ
			(15653) (MCDONNELL SPEC							
			ST3M470C3M) (USE WITH INDEX 1)							
	MS20426AD3 #	.	RIVET (AP)					2		-
2	MS29513-230	.	PACKING					6		PAOZZ
3	W901K40DE	.	COUPLING, CLAMP, GROOVED					3		PAOZZ
			(79326) (MCDONNELL SPEC							
			7M765-40D) (INCLUDES SLEEVE)							
	14J12-40A	.	COUPLING, CLAMP, GROOVED					3		PAOZZ
			(24984) (MCDONNELL SPEC							
			7M765-40D) (INCLUDES SLEEVE)							
	W901F40DE	.	COUPLING, CLAMP, GROOVED					3	*	PAOZZ
			(79326) (MCDONNELL SPEC							
			7M550-40D) (INCLUDES SLEEVE)							
4	74A586321-1011	.	VENT ASSEMBLY, FUEL TANK NO. 3.					1		PAOZZ
			(NO. 3 FUEL TANK DIVE VENT							
			CHECK VALVE) (76301) (5VAP582)							
	74A585003-2001	.	MAIN VENT ASSEMBLY (NO. 3 FUEL					1	*	PAOZZ
			TANK DIVE VENT CHECK VALVE)							
			(76301) (5VAP582)							
	NAS1802-06-7	.	SCREW (USE WITH INDEX 4).....					2		PAOZZ
	AN960JD6L	.	WASHER (USE WITH INDEX 4)					2		PAOZZ
	NAS1291C06M	.	NUT (USE WITH INDEX 4)					2		PAOZZ
5	NAS673V4	.	BOLT					3	A	PAOZZ
	NAS673V6	.	BOLT					1	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH INDEX 5)					6		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 5).....					3	A	PAOZZ
	NAS43DD3-11	.	SPACER (USE WITH INDEX 5).....					1	B	PAOZZ
6	NAS673V4	.	BOLT					1	A	PAOZZ
	NAS673V7	.	BOLT					1	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH INDEX 6)					1		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 6).....					1	A	PAOZZ
	NAS43DD3-11	.	SPACER (USE WITH INDEX 6).....					1	B	PAOZZ
7	NAS673V4	.	BOLT					1	A	PAOZZ
	NAS673V5	.	BOLT					1	B	PAOZZ
	4M36-01016	.	WASHER (76301) (USE WITH INDEX 7)					1		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 7).....					1	A	PAOZZ
	NAS43DD3-11	.	SPACER (USE WITH INDEX 7).....					1	B	PAOZZ
8	74A586556-2001	.	GASKET, PROBE GUIDE - RAISED					1	B	MDOZZ
			INVERTED BAFFLE TK 2 & TK 3 (76301)							
9	74A586297-2001	.	GUIDE PROBE - FUEL QTY, TANK 2.....					1		XBOZZ
			AND 3 (76301)							
10	74A586309-2101	.	DEFLECTOR (76301)					1		XBOZZ
	NAS674V18	.	BOLT (AP)					4		PAOZZ
	AN960JD416	.	WASHER (AP)					4		PAOZZ
	NAS43DD4-76	.	SPACER (AP).....					4		PAOZZ
11	MS21209F4-15	.	INSERT					4		PAOZZ
12	MS29512-06	.	PACKING					1		PAOZZ

Figure 2. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161716 AND UP; ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 4)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
13	7M637BD-6D	.	NIPPLE, TUBE (76301).....						1		PAOZZ
14	74A586383-1007	.	TUBE ASSEMBLY, METAL - FUEL						1		AGOGG
			LEVEL SENSOR, TK NO. 3 (76301) (SUPERSEDES 74A58633-1005)								
15	2760008-117	.	VALVE, SHUTOFF - FUEL						1		PAOZZ
			TRANSFER (TANK 3) (NO. 3 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580163-117) (5VAP605)								
	2760008-115	.	VALVE, SHUTOFF - FUEL						1	*	PAOZZ
			TRANSFER (TANK 3) (NO. 3 FUEL TANK TRANSFER SHUTOFF VALVE) (92003) (MCDONNELL SPEC 74-580163-115) (5VAP605)								
	2760008-111	.	SEE ABOVE (MCDONNELL						1	*	PAOZZ
			SPEC 74-580163-111)								
	NAS674V5	.	BOLT (AP)						4		PAOZZ
	AN960JD416L	.	WASHER (AP)						4		PAOZZ
16	MS21209F4-10	.	INSERT						4		PAOZZ
17	MS29513-229	.	PACKING						1		PAOZZ
18	74A586272-2011	.	TEE ASSEMBLY, TRANSFER						1		XBOZZ
			VALVE TANK NO. 2 (76301) (SUPERSEDES 74A586272-1001 AND 74A586272-1003)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161716 THRU 161761 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B
B	161924 & UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B

**Figure 2. No. 3 Fuel Tank Transfer Shutoff Valve (5VAP605) 161716 AND UP; ALSO
161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53 (Sheet 5)**

ORGANIZATIONAL MAINTENANCE
SYSTEM MAINTENANCE WITH IPB
NO. 3 FUEL TANK FUEL LEVEL SENSOR
(5VAP590)
INTERNAL FUEL TRANSFER SYSTEM

Reference Material

Fuel System	F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
No. 3 Fuel Tank Cycle Test	WP012 05

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No. 3 Fuel Tank Fuel Level Sensor (5VAP590), Figure 1	3
Removal	1
Support Equipment Required	1

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 IAFC 017 Part 1 and Part 2	-	Fuel System, Tank No. 4 Fuel Transfer Manifold, Modification, of (ECP MDA F/A-18-00084R1)	15 Jul 86	-

Support Equipment Required

None

Materials Required

Nomenclature	Specification or Part Number
Packing (2)	MS29513-230
Petrolatum, Technical	VV-P-236 (CAGE 81348)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Remove tube (1, figure 1, detail A), coupling (3) and packings (2).
- c. Disconnect tubes (7 and 10, detail B).
- d. Remove sensor (8) and attaching parts.

e. Remove elbow (9).

2. INSTALLATION.

a. Do general preparation for installation (WP013 00).



Petrolatum, Technical

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b. Lubricate new packings with petrolatum.



To prevent damage to sensor, hold sensor with wrench while torquing elbow and tube.

c. Install elbow (9, figure 1, detail B) on sensor (8). Hold sensor (8) with wrench while torquing elbow (9).

d. Install sensor (8) and attaching parts.

e. Connect tubes (7 and 10). Hold sensor (8) with wrench while torquing tube (10).

f. Install tube (1, detail A), coupling (3), and packings (2).

g. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)

h. Install tank access cover (WP006 00).

i. Connect utility and emergency battery connectors (WP013 00).

j. Do no. 3 fuel tank cycle test (A1-F18AC-460-200, WP012 05).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.

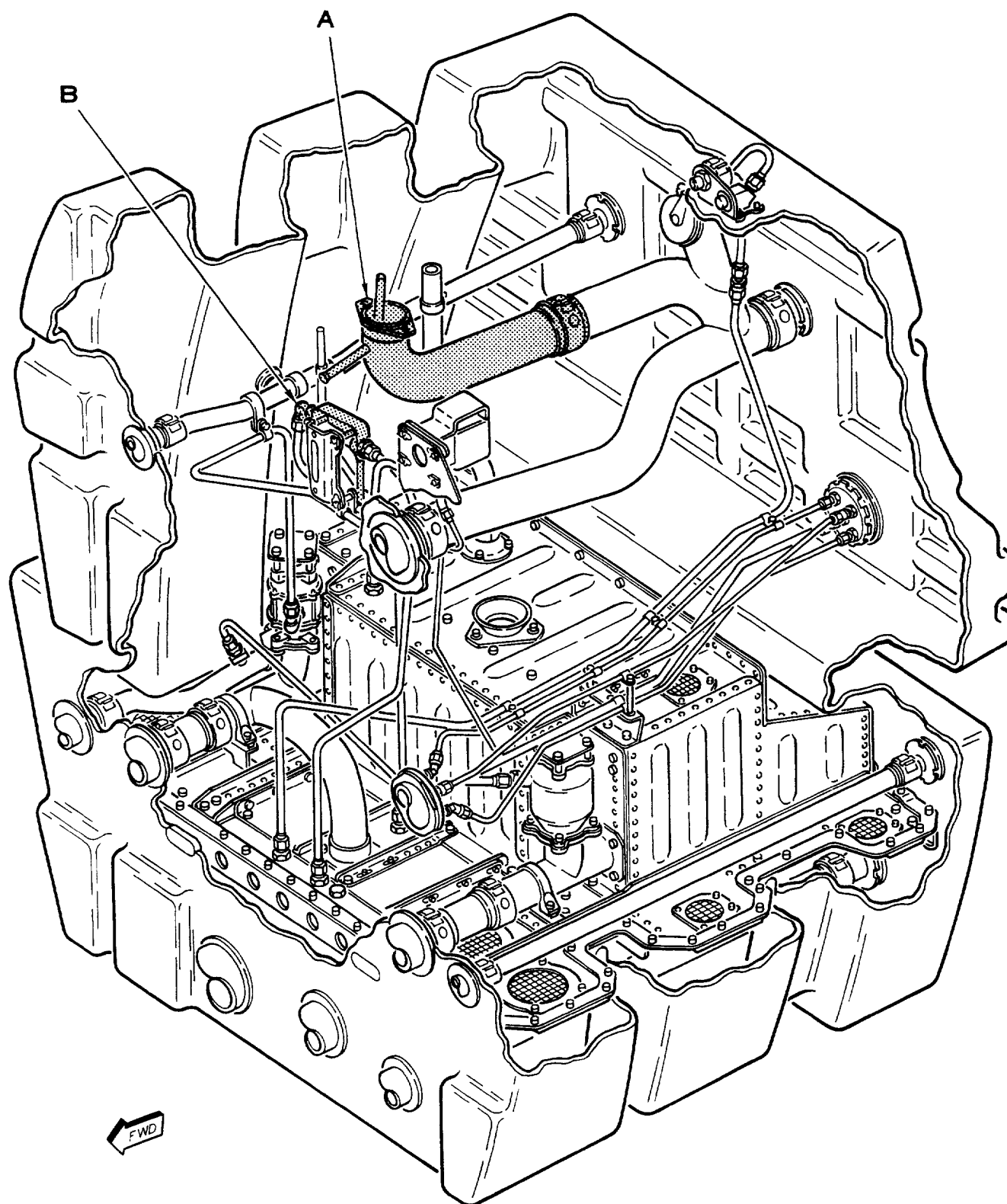


Figure 1. No. 3 Fuel Tank Fuel Level Sensor (5VAP590) (Sheet 1)

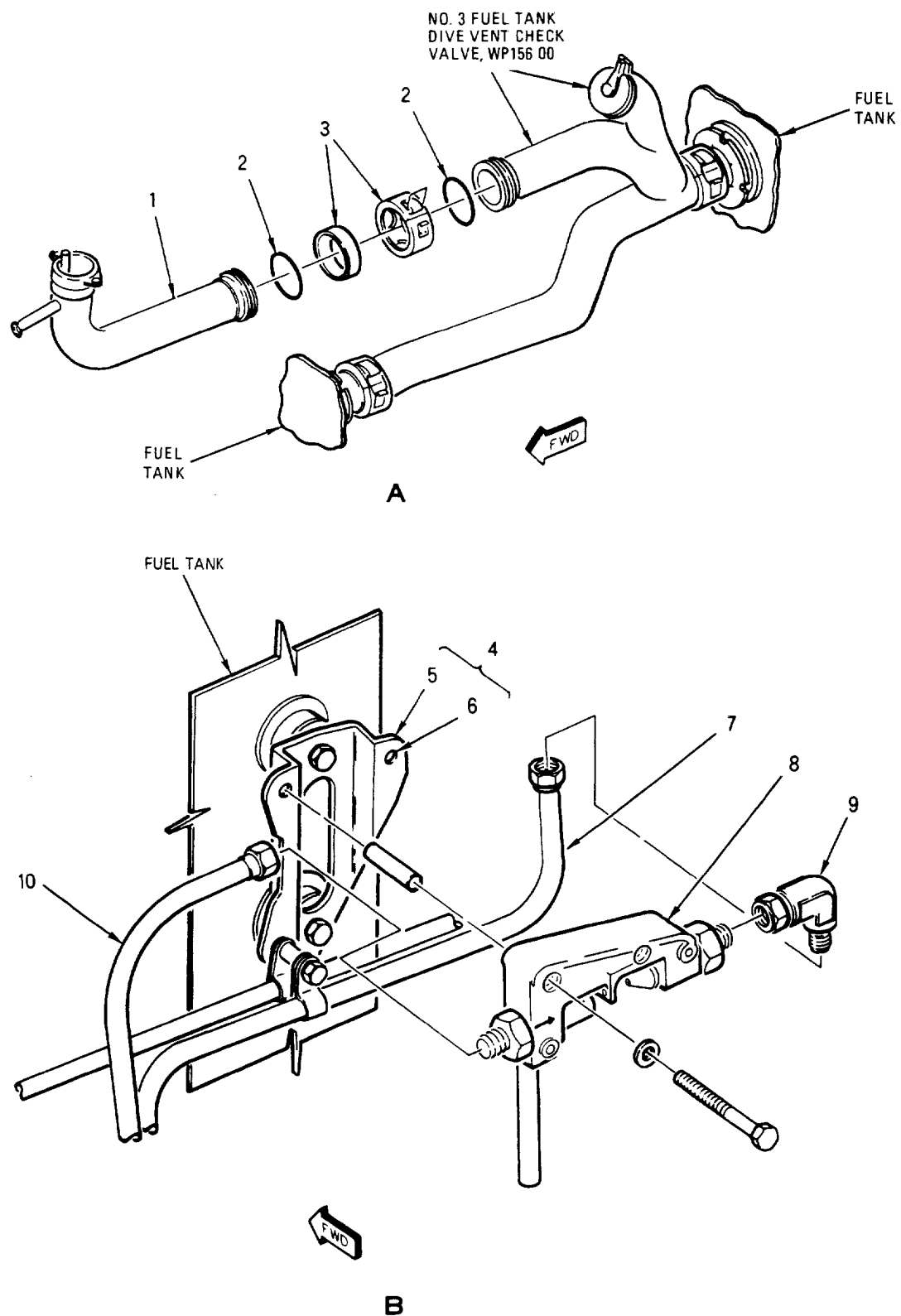


Figure 1. No. 3 Fuel Tank Fuel Level Sensor (5VAP590) (Sheet 2)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 3 FUEL TANK FUEL LEVEL									
		SENSOR (5VAP590)									
1	74A586381-1001	.	TUBE ASSY - CLIMB VENT, FUEL						1		XBOOO
			TANK NO. 3 (76301)								
	NS103597-048	.	NUT, SELF-LOCKING, PLATE (80539)						2		PAOZZ
			(MCDONNELL SPEC ST3M470C3M)								
			(USE WITH INDEX 1)								
	MS20426AD3 #	.	RIVET (AP)						2		-
2	MS29513-230	.	PACKING						2		PAOZZ
3	W90IK40DE	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(79326) (MCDONNELL SPEC								
			7M765-40D) (INCLUDES SLEEVE)								
	14J12-40A	.	COUPLING, CLAMP, GROOVED						1		PAOZZ
			(24984) (MCDONNELL SPEC								
			7M765-40D) (INCLUDES SLEEVE)								
	W901F40DE	.	COUPLING, CLAMP, GROOVED						1	*	PAOZZ
			(79326) (MCDONNELL SPEC								
			7M550-40D) (INCLUDES SLEEVE)								
4	74A586309-1007	.	BRACKET ASSY (76301)						1		XBOOO
5	74A586309-2009	.	BRACKET (76301)						1		MGOZZ
6	MS21062L3	.	NUT, PLATE						3		PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
7	74A586345-1001	.	TUBE ASSEMBLY, METAL - FUEL LEVEL						1		AGOZZ
			SENSOR, TK NO. 3 (76301)								
8	2760009-105	.	SENSOR, FUEL LEVEL, JET OPERATED						1	B	PAOZZ
			(TANK 3) (NO. 3 FUEL TANK FUEL								
			LEVEL SENSOR) (92003)								
			(MCDONNELL SPEC 74-580123-105)								
			(5VAP590) (REPLACES 2760009-103)								
	2760009-103	.	SEE ABOVE (MCDONNELL SPEC						1	A	PAOZZ
			74-580123-103) (USE								
			UNTIL EXHAUSTED)								
	NAS673V32	.	BOLT (AP)						2		PAOZZ
	AN960JD10	.	WASHER (AP)						2		PAOZZ
	NAS43DD3-76A	.	SPACER (AP)						2		PAOZZ
9	7M148V6	.	ELBOW (76301)						1		PAOZZ
	7M148DA6	.	ELBOW (76301)						1	*	PAOZZ
10	74A586354-1001	.	TUBE ASSEMBLY, METAL - JET						1		XBOZZ
			LEVEL SENSOR, FUEL								
			TK NO. 3 (76301)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

CODE	USABLE ON	MODEL
A	161353 THRU 161982 BEFORE F18 IAFC 017 PART 1 AND PART 2	F/A-18A/B
B	161983 AND UP: ALSO 161353 THRU 161982 AFTER F18 IAFC 017 PART 1 AND PART 2	F/A-18A/B

Figure 1. No. 3 Fuel Tank Fuel Level Sensor (5VAP590) (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

**NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5S-R131)**

INTERNAL FUEL TRANSFER SYSTEM

Title	WP Number
No. 3 Fuel Tank Pressure Operated Interconnect Valve - 161353 THRU 161715 BEFORE F18 AFC 18 AND F18 AFC 53	114 01
No. 3 Fuel Tank Pressure Operated Interconnect Valve - 161716 AND UP; ALSO 161353 THRU 161715 AFTER F18 AFC 18 AND F18 AFC 53	114 02

ORGANIZATIONAL MAINTENANCE

SYSTEM MAINTENANCE WITH IPB

NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5S-R131)

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161353 THRU 161715 BEFORE F/A-18 AFC 18 AND F/A 18 AFC 53

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuselage Fuel Tanks Motive Flow/Transfer Tubes Coupling Inspection	WP013 01
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Removal	2
Support Equipment Required	1

Record of Applicable Technical Directives

None

Support Equipment Required

None

Materials Required (Cont)

Materials Required		Specification or Part Number	
Nomenclature	Specification or Part Number	Nomenclature	Specification or Part Number
Packing	MS29512-06	Packing (2)	MS29513-230
Packing (2)	MS29513-222	Packing	MS29513-334
Packing (5)	MS29513-226	Petrolatum, Technical	VV-P-236 (CAGE 81348)
		Tape, Lacing	MIL-T-43435, Type-2, Size-3, Finish-C (CAGE 81349)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect connector (1, figure 1, detail A).
- c. Remove coupling (5), packings (4), and disconnect adapter (6) at elbow (7).



To prevent damage to wires, carefully pull wires through components and hardware.

- d. Remove wires from connector (2) and carefully pull wires through adapter (6).
- e. Attach a 6 foot length of lacing tape to the wires.
- f. Remove tube (9, detail B), coupling (11), and packings (10).
- g. Disconnect tube (18, detail C).
- h. Disconnect clamps (20, 22, and 23) and attaching parts.
- i. Remove bolts (16), couplings (13), packings (12), and manifold (15) with tube (14).
- j. Disconnect tube (21, detail D).
- k. Remove screen (29) and attaching parts.
- l. Remove or loosen bolts (27 and 36, detail E) and washers as required to remove webs (30 and 38) and retainers (26 and 28).
- m. Disconnect tube (49, detail F) at elbow (48).
- n. Disconnect elbow (45) or tube (53) from valve (35). Loosen and rotate tube (44 or 53) to gain access to nut assembly (50).
- o. Disconnect nut assembly (50), and carefully pull wires through tubes (42 and 44 or 53), then untie lacing tape from wire and remove valve (35).
- p. Remove elbow (48), nut (47), and packing (46).

2. INSTALLATION.

- a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

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- b. Lubricate new packings with petrolatum.
- c. Install packing (46, figure 1, detail F), nut (47), and elbow (48). Do not tighten nut (47).
- d. Prepare mating surfaces of valve (35) and connector (52) for electrical bond (A1-F18AC-LMM-000).
- e. Install packing (51) and nut assembly (50) on valve (35).
- f. Position valve (35) below baffle and tie wires to lacing tape in tube (44 or 53).



To prevent damage to wires, carefully pull wires through components and hardware.

- g. Carefully pull wires through tubes (44 or 53 and 42). then install valve (35) with nut assembly (50). Tighten nut assembly (50) handtight.
- h. Tighten tube (44 or 53).
- i. Connect tube (49) to elbow (48), and elbow (45) or tube (53) to valve (35). Torque tube (42) and elbow (45) or tube (53) 75 to 140 inch-pounds. (QA)
- j. Tighten nut (47).
- k. Inspect for and remove any foreign objects from below baffle area.
- l. Install web (30 and 38, detail D and detail E). Make sure webs are between beam and fuel tank.
- m. Position retainer (28) over retainer (26) and under retainer (39), install bolts (27 and 36) and washers.
- n. Install screen (29, detail D) and attaching parts.

- o. Connect tube (21).
- p. Prepare mating surfaces of manifold (15, detail C) and baffle for electrical bond (A1-F18AC-LMM-000).
- q. Install packings (12), manifold (15), and bolts (16) and washers.
- r. Install couplings (13).
- s. Connect clamps (20, 22, and 23) with attaching parts.
- t. Connect tube (18).
- u. Install packings (10, detail B) coupling (11), and tube (9).
- v. Prepare adapter (6, detail A) for electrical bond with adapter (3).

NOTE

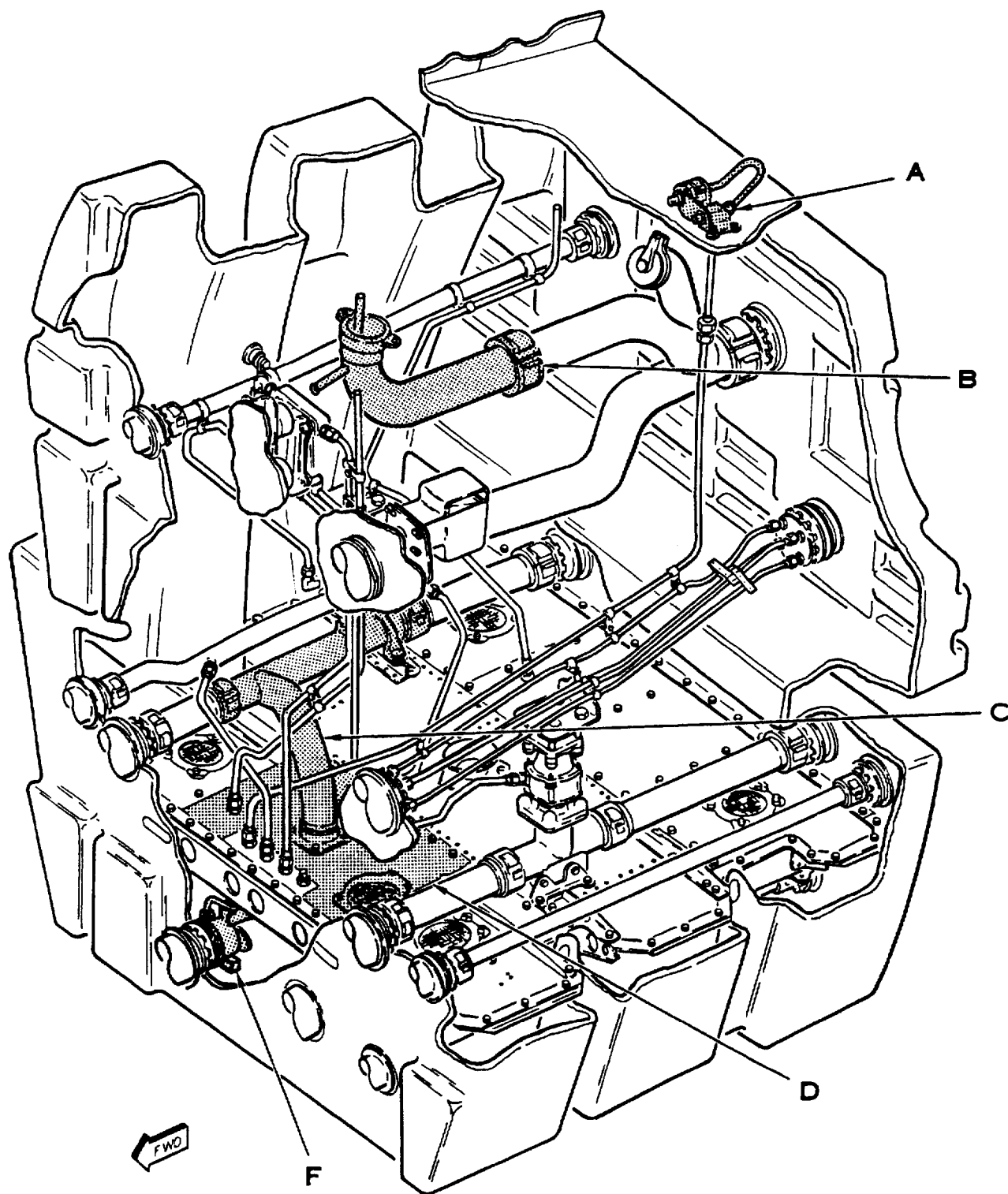
Wires from valve (34) can be attached to either pin 5 or 6 in connector (2).

- w. Untie lacing tape and route wires through adapter (6), then attach wires to either pin 5 or 6 in connector (2).

- x. Install packings (4), coupling (5) and adapter (6).
- y. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP013 01). (QA)
- z. Check to see that nut on connector (2) is lock-wired. (QA)
- aa. Install connector (1).
- ab. Install access cover (WP006 00).
- ac. Connect utility and emergency battery connectors (WP013 00).
- ad. Do internal feed transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

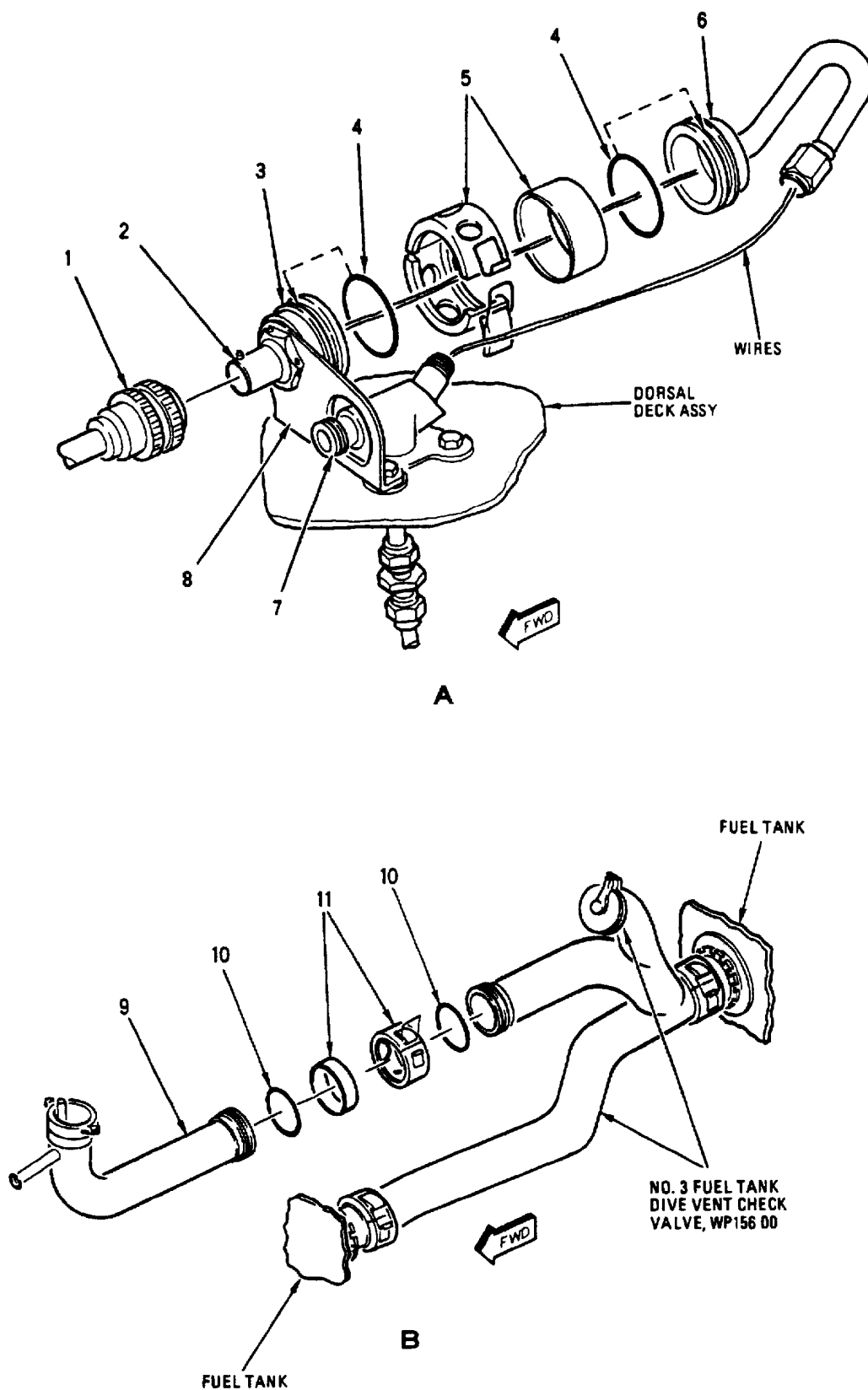
3. ILLUSTRATED PARTS BREAKDOWN.

- 4. This illustrated parts breakdown has data required for identifying and ordering parts. The manual introduction has more information on IPB data.



11401011

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 1)



11401012

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 2)

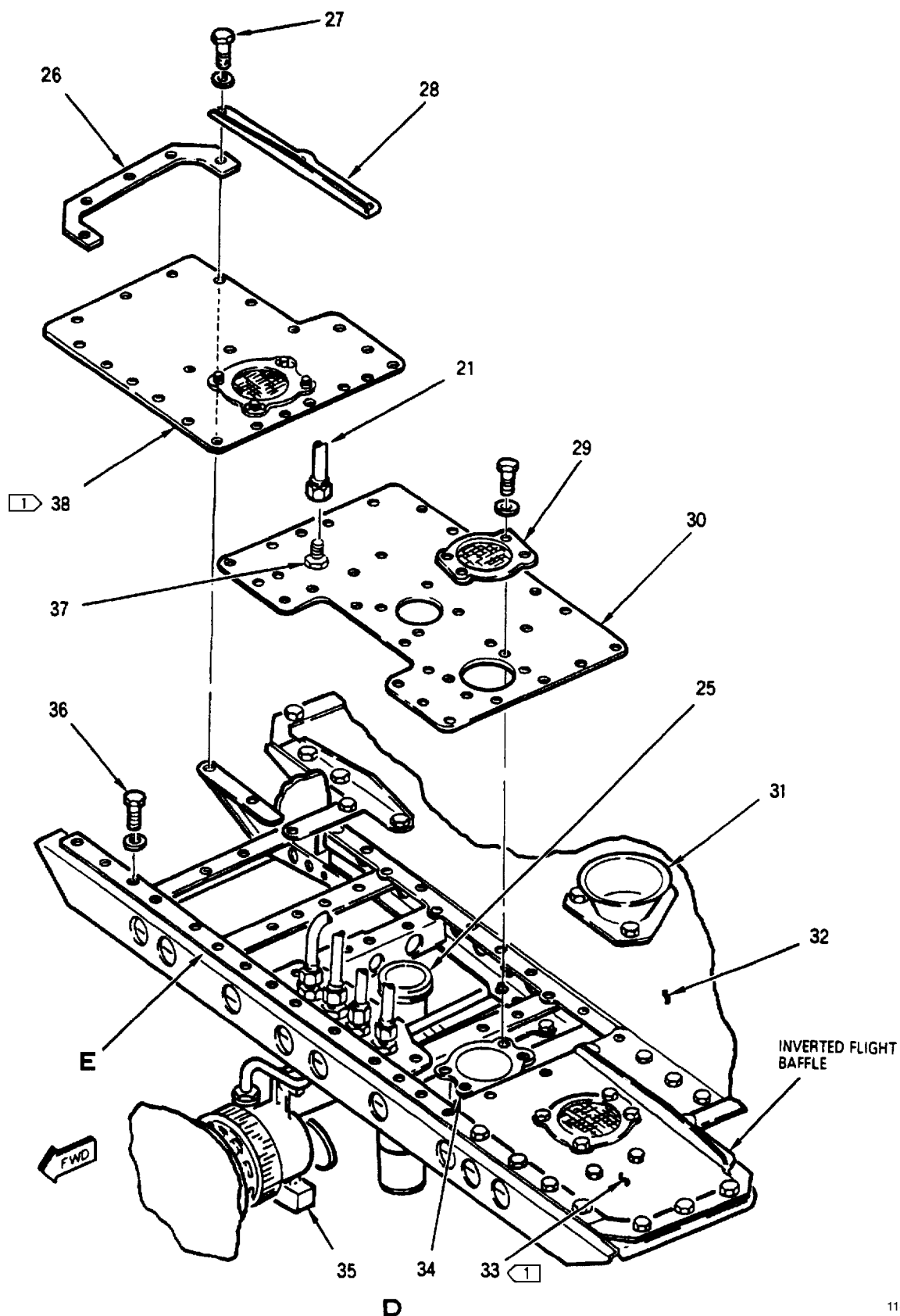
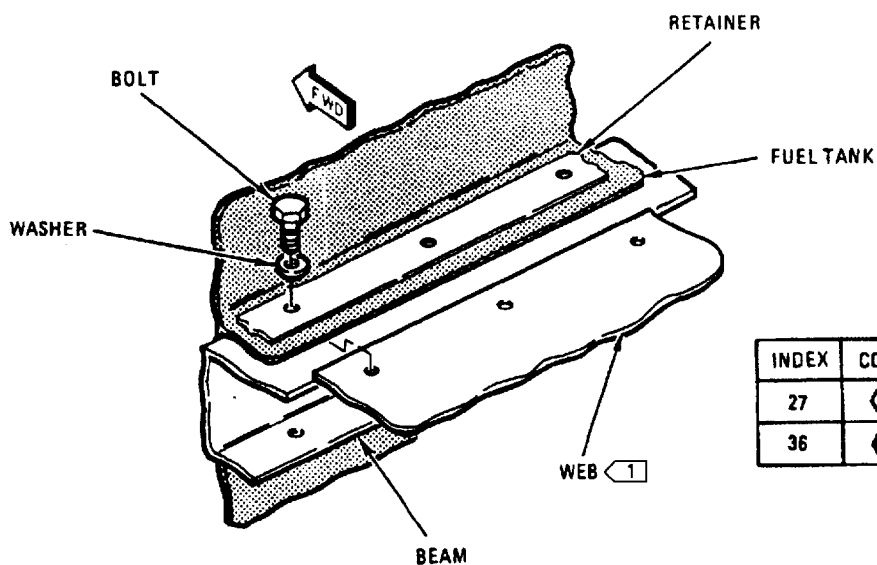
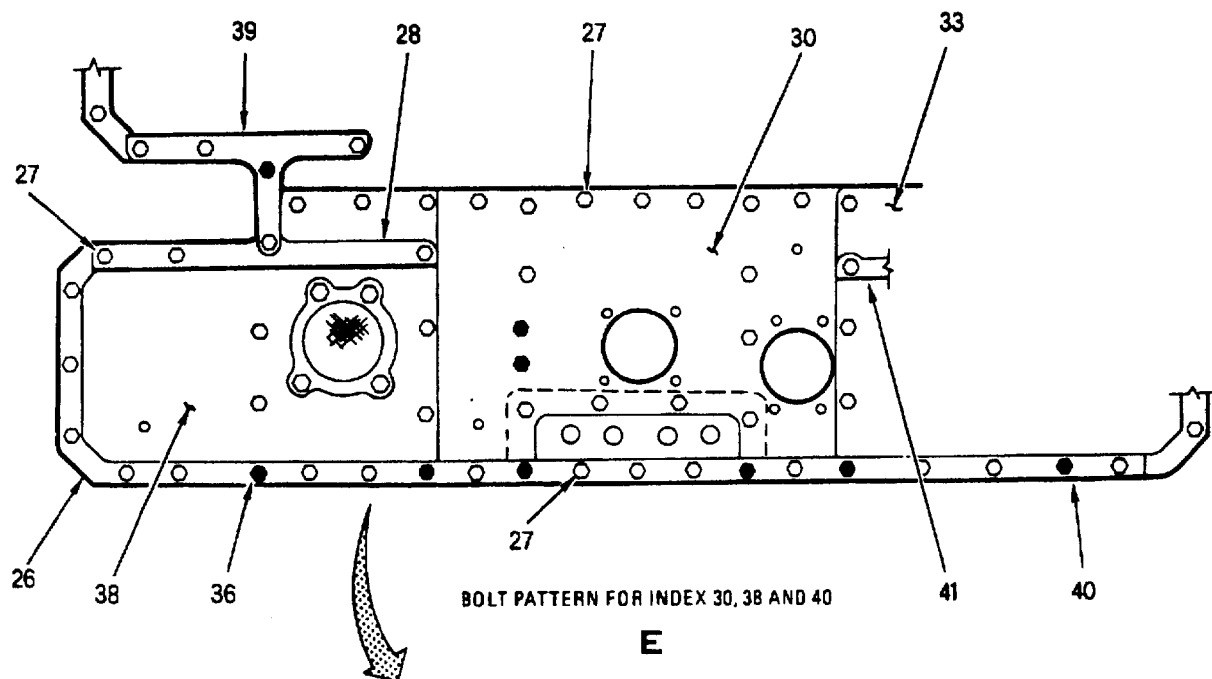


Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 4)

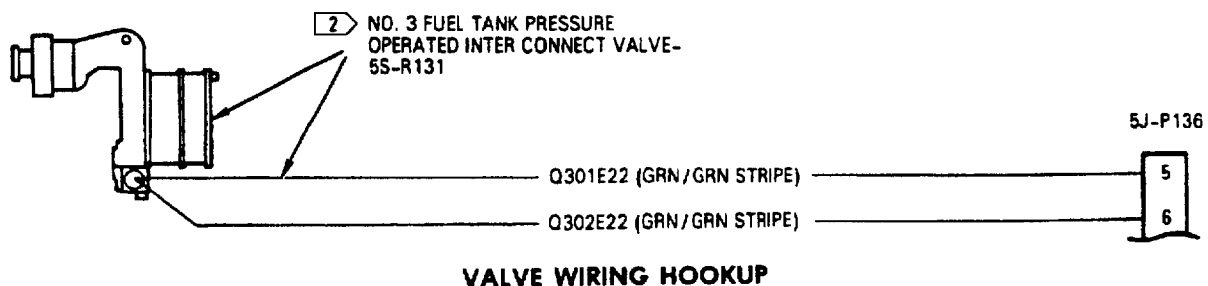


INDEX	CODE	BOLT	WASHER
27	⬡	NAS673V4	AN960J010L
36	●	NAS673V6	AN960J010L

LEGEND

1 WEBS (30 AND 38) ARE INSTALLED BETWEEN BEAM AND FUEL TANK.

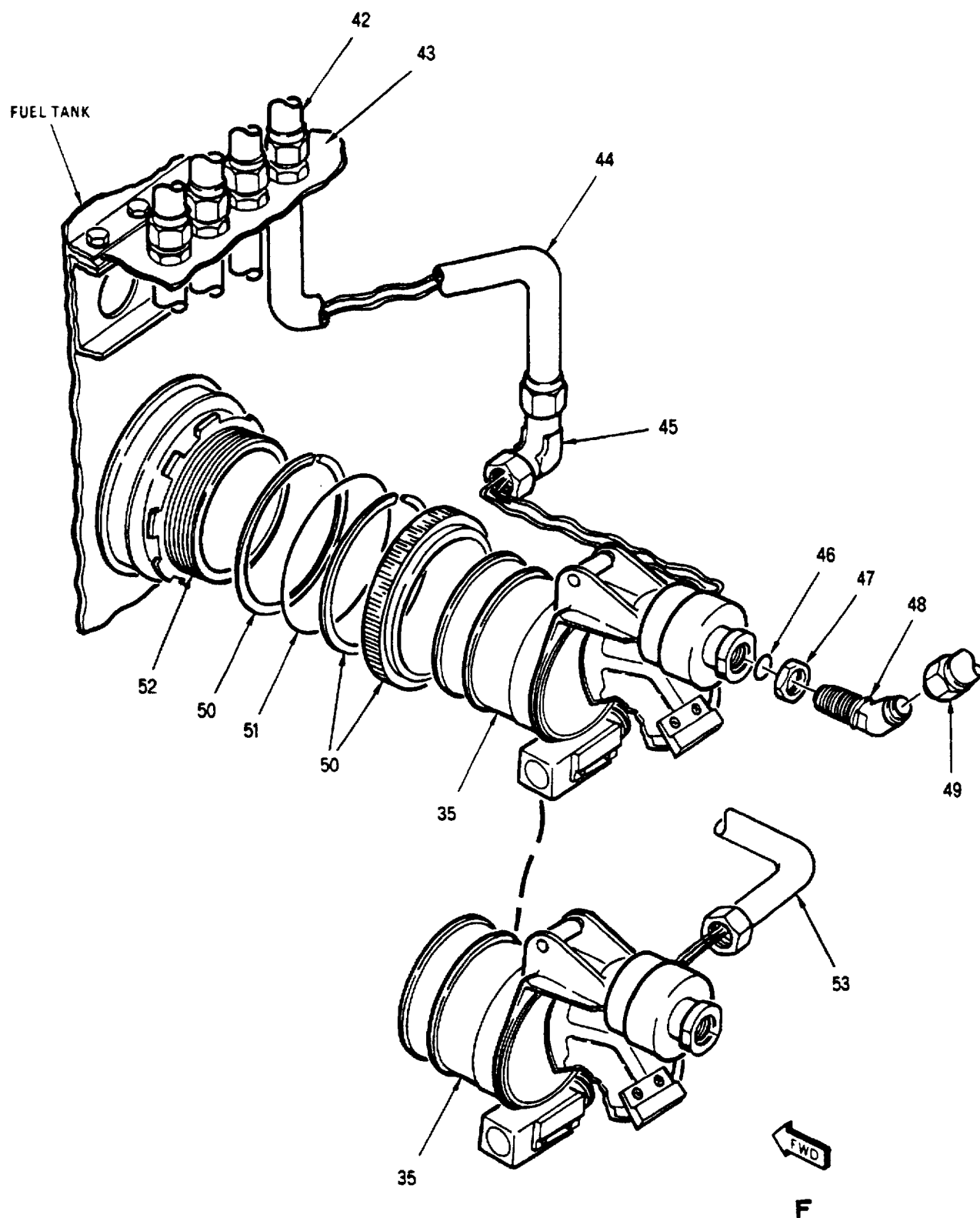
2 FOR ASSEMBLY SEE 74A770200, A1-F18AC-WRM-000.



VALVE WIRING HOOKUP

11401015

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 5)



11401016

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE (5S-R131)			
1	MS27467T11B35S	. CONNECTOR, PLUG (5P-P136)	1		PAOZZ
2	KJL7YC103451-3	. CONNECTOR, RECEPTACLE, ELECTRICAL (71468) (MCDONNELL SPEC 5M1701-11D35PN) (INCLUDES NUT) (5J -P136)	1	*	PAOZZ
	92344-01	. SEE ABOVE (14283)	1	*	PAOZZ
3	74A586694-2003	. ADAPTER (76301)	1		XBOZZ
4	MS29513-222	. PACKING	2		PAOZZ
5	W901K24DE	. COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M765-24D1) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-24A	. COUPLING, CLAMP, GROOVED (HALF) (24984) (MCDONNELL SPEC 7M765-24D1) (INCLUDES SLEEVE)	1		PAOZZ
	W901F24DE	. COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M550-24D1) (INCLUDES SLEEVE)	1	*	PAOZZ
6	74A586694-1001	. ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (76301)	1		XBOZZ
7	74A586255-1009	. ELBOW, TUBE - 0.50 IN. LINE, VENT FUEL SYSTEM (76301) (SUPERSEDES 74A586255-1005 AND 74A586255-1001)	1		XBOZZ
8	74A586244-2093	. BRACKET (76301)	1		XBOZZ
9	74A586381-1001	. TUBE ASSY - CLIMB VENT, FUEL TANK NO. 3 (76301)	1		XBOOO
	NS103597-02	. NUT, SELF-LOCKING, PLATE (80539) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 9)	2	*	PAOZZ
	F10965-1-3	. NUT, SELF-LOCKING, PLATE (72962) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 1)	2	*	PAOZZ
	F29339-01-3	. NUT, SELF-LOCKING, PLATE (15853) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 9)	2	*	PAOZZ
	MS20426AD3 #	. RIVET (AP)	2		-
10	MS29513-230	. PACKING	6		PAOZZ
11	W901K40DE	. COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M765-40D1) (INCLUDES SLEEVE)	1		PAOZZ
	14J12-40A	. COUPLING, CLAMP, GROOVED (HALF) (24984) (MCDONNELL SPEC 7M765-40D1) (INCLUDES SLEEVE)	1		PAOZZ
	W901F40DE	. COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M550-40D1) (INCLUDES SLEEVE)	1	*	PAOZZ
12	MS29513-226	. PACKING	5		PAOZZ

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 7)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
13	W901K32DE	.	COUPLING, CLAMP, GROOVED	.....					2		PAOZZ
			(79320) (MCDONNELL SPEC								
			7M765-32D) (INCLUDES SLEEVE)								
	14J12-32A	.	COUPLING, CLAMP, GROOVED	.....					2		PAOZZ
			(24984) (MCDONNELL SPEC								
			7M765-32D) (INCLUDES SLEEVE)								
	W901F32DE	.	COUPLING, CLAMP, GROOVED	.....					2	*	PAOZZ
			(78326) (MCDONNELL SPEC								
			7M550-32D) (INCLUDES SLEEVE)								
14	74A586324-1013	.	TUBE ASSEMBLY, METAL - REFUEL	.....					1		XBOZZ
			SYSTEM, TANK NO. 3 (76301)								
			(SUPERSEDES 74A586324-1009)								
15	74A586326-1005	.	MANIFOLD, DEFUELING -	.....					1		XBOZZ
			TANK NO. 3 (76301)								
16	NAS673V2	.	BOLT	.....					6		PAOZZ
	AN9601D10L	.	WASHER (USE WITH INDEX 16)	.....					6		PAOZZ
17	7M148V6	.	ELBOW (76301)	.....					1		PAOZZ
	7M148DA6	.	ELBOW (70301)	.....					1	*	PAOZZ
18	74A586341-1005	.	TUBE ASSEMBLY, METAL - PILOT	.....					1		MGOZZ
			VALVE RH PORT TO REFUEL V (76301)								
19	NAS673V5	.	BOLT	.....					1		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 20)	.....					1		PAOZZ
20	MS25281R6	.	CLAMP (SUPERSEDES MS25281-6)	.....					1		PAOZZ
21	74A586314-1001	.	TUBE ASSEMBLY, METAL - VENT,	.....					1		MGOZZ
			AFT, INVERTED FLT COMPT,								
			TK 3 (76301)								
22	MS25281-R20	.	CLAMP	.....					1		PAOZZ
	NAS673V5	.	BOLT (AP)	.....					1		PAOZZ
	AN960JD10	.	WASHER (AP)	.....					1		PAOZZ
23	NAS1787A32G	.	CLAMP	.....					1		PAOZZ
	NAS673V9	.	BOLT (AP)	.....					2		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					2		PAOZZ
24	74A586327-1007	.	TUBE ASSEMBLY, METAL - DEFUEL,	.....					1		XBOZZ
			TANK NO. 3 (76301)								
25	74A586324-1011	.	TUBE ASSEMBLY, METAL - PILOT	.....					1		XBOZZ
			VALVE RH PORT TO REFUEL V								
			(76301) (SUPERSEDES 74A586324-1007)								
26	74A586303-2421	.	RETAINER (76301)	.....					1		XBOZZ
27	NAS673V4	.	BOLT	.....					AR		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 27)	.....					AR		PAOZZ
28	74A586303-2399	.	RETAINER (76301)	.....					1		XBOZZ
29	74A58637-1005	.	SCREEN ASSY - INVERTED FLIGHT	.....					1		XBOZZ
			BAFFLE, TANKS NO. 2 & 3 (76301)								
	NAS673V5	.	BOLT (AP)	.....					4		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					4		PAOZZ
30	74A586303-2535	.	SKIN ASSY (WEB) (76301)	.....					1		XBOOO
	NAS673V4	.	BOLT (AP)	.....					19		PAOZZ
	NAS673V6	.	BOLT (AP)	.....					2		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					21		PAOZZ
31	74A586297-2001	.	GUIDE, PROBE - FUEL QTY,	.....					1		XBOZZ
			TANK 2 & 3 (76301)								
	NAS673V4	.	BOLT (AP)	.....					3		PAOZZ
	4M36-01016	.	WASHER (AP) (76301)	.....					6		PAOZZ
	NAS43DD3-8	.	SPACER (AP)	.....					3		PAOZZ

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 8)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
32	74A586303-2563	.	PANEL ASSY, CENTER (76301)	.....					1		XBOOO
			(DOUBLE HINGE) (FOR								
			REPAIR SEE WP024 04)								
	74A586303-2547	.	PANEL ASSY, CENTER (76301)	.....					1	*	XBOOO
			(SINGLE HINGE) (FOR								
			REPAIR SEE WP024 04)								
	74A586303-2531	.	PANEL ASSY, CENTER (76301)	.....					1	*	XBOOO
			(FOR REPAIR SEE WP024 04)								
33	74A586303-2343	.	WEB ASSY (76301)	.....					1		XBOOO
34	74A586312-1001	.	TUBE ASSEMBLY, METAL -	.....					1		XBOOO
			INVERTED FLT BAF, SURGE								
			RLF, TK 3 (76301)								
	F50339-3-4	.	NUT, SELF-LOCKING, PLATE	.....					6	*	PAOZZ
			(15653) (MCDONNELL SPEC								
			ST3M719C3M4) (USE								
			WITH INDEX 34)								
	F12090-4-3	.	NUT, SELF-LOCKING, PLATE	.....					6	*	PAOZZ
			(72962) (MCDONNELL SPEC								
			ST3M719C3M4) (USE WITH								
			INDEX 34)								
	NAS1097AD3 #	.	RIVET (AP)	.....					2		-
35	55-7600-5	.	VALVE, INTERCONNECT, FUEL	.....					1		PAOZZ
			PRESSURE OPERATED (NO. 3								
			FUEL TANK PRESSURE								
			OPERATED INTERCONNECT								
			VALVE) (96736) (MCDONNELL								
			SPEC 74-580110-119) (5S-R131)								
			(REPLACES 55-7600-1, 41400-109)								
	74B580188-1001	.	SEE ABOVE (76301) (REPLACES	.....					1	*	PAOZZ
			55-7600-14, 41400-109) (USE								
			UNTIL EXHAUSTED)								
	41400-111	.	SEE ABOVE (04192) (MCDONNELL	.....					1	*	PAOZZ
			SPEC 74-580110-111) (REPLACES								
			55-7600-1, 41400-109) (USE								
			UNTIL EXHAUSTED)								
	41400-109	.	SEE ABOVE MCDONNELL SPEC	.....					1	*	PAOZZ
			74-580110-109) (5S-R131)								
			(REPLACED BY 41400-111, OR								
			55-7600-5) (USE UNTIL EXHAUSTED)								
36	NAS673V6	.	BOLT	.....					AR		PAOZZ
	AN960JD10L	.	WASHER (USE WITH INDEX 36)	.....					AR		PAOZZ
37	7M637BT-6D	.	NIPPLE, TUBE (76301)	.....					1		PAOZZ
38	74A586303-2339	.	WEB ASSY (76301)	.....					1		XBOOO
	NAS674V4	.	BOLT (AP)	.....					7		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					7		PAOZZ
39	74A586303-2353	.	RETAINER (76301)	.....					1		XBOZZ
40	74A586303-2377	.	RETAINER (FWD) (76301)	.....					1		XBOZZ
41	74A586303-2401	.	RETAINER (76301)	.....					1		XBOZZ
42	74A586688-1003	.	TUBE ASSEMBLY, METAL - GRAVITY	.....					1		MGOZZ
			FEED CONDUIT LINE, TANK 3								
			(76301) (SUPERSEDES								
			74A586688-1003)								
43	74A586303-2077	.	PLATE ASSY (76301)	.....					1		XBOOO
44	74A586687-1003 c	.	TUBE ASSEMBLY, METAL -	.....					1		MGOZZ
			GRAVITY FEED SIGNAL,								
			TANK NO. 3 (76301)								
			(SUPERSEDES 74A586687-1001)								

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 9)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
45	7M148V6 ¢	.	ELBOW (76301)	.....					1		PAOZZ
	7M148DA6	.	ELBOW (76301)	.....					1	*	PAOZZ
46	MS29512-06	.	PACKING	.....					1		PAOZZ
47	AN924-6D	.	NUT	.....					1		PAOZZ
48	7M637BY-6D	.	ELBOW, TUBE (76301)	.....					1		PAOZZ
49	74A586368-1005	.	TUBE ASSEMBLY, METAL -	.....					1		MGOZZ
			FILTER TEE TO Y428								
			INTERCON VALVE (76301)								
50	W702-40D	.	NUT ASSEMBLY, TUBE	.....					1	*	PAOZZ
			COUPLING (79326)								
			(MCDONNELL SPEC								
			ST7M191-40D) (INCLUDES								
			NUT AND 2 WASHERS)								
	12H72-40A	.	SEE ABOVE (24984)	.....					1	*	PAOZZ
51	MS29513-334	.	PACKING	.....					1		PAOZZ
52	74A586212-1001	.	CONNECTOR, TUBE,	.....					1		XBOZZ
			BULKHEAD - 2.50 IN, GRAVITY								
			INTCON, Y419 (76301)								
53	74A586687-1007	.	TUBE ASSEMBLY, METAL -	.....					1		MGOZZ
			GRAVITY FEED SIGNAL,								
			TANK NO. 3 (76301)								

* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE To BE DETERMINED
AT INSTALLATION.

¢ USE 74A586387-1007 ONLY AS
REPLACEMENT PART

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 10)

ORGANIZATIONAL MAINTENANCE**SYSTEM MAINTENANCE WITH IPB****NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE
(5S-R131)****INTERNAL FUEL TRANSFER SYSTEM**

**EFFECTIVITY: 161716 AND UP;
ALSO 161353 THRU 161715 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53**

Reference Material

Fuel System	A1-F18AC-460-300
No. 3 Fuel Tank Access Cover	WP006 00
Fuel Tank Maintenance Precautions and General Preparation	WP013 00
Fuel System	A1-F18AC-460-200
Internal Fuel Transfer and Engine Fuel Supply System Test	WP012 00
Line Maintenance Procedures	A1-F18AC-LMM-000

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Parts List	9
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Materials Required	2
No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131), Figure 1	4
Removal	2
Support Equipment Required	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F/A-18-00055C1)	15 Jul 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077/C1/C2)	15 Jul 86	-

Support Equipment Required

Nomenclature	Part Number or Type Designation
Torque Wrench, 0 to 120 Inch-Pounds	-

Materials Required

Nomenclature	Specification or Part Number
Packing	MS29512-06
Packing (2)	MS29513-222
Packing (6)	MS29513-226
Packing (2)	MS29513-230
Packing	MS29513-334
Petrolatum, Technical	VV-P-236 (CAGE 81348)
Tape, Lacing	MIL-T-43435, Type-2, Size-3, Finish C (CAGE 81349)
Wire, Safety, Nonelectrical	MS20995NC32 (CAGE 96906)

1. REMOVAL.

- a. Do general preparation for removal (WP013 00).
- b. Disconnect connector (1, figure 1, detail A).
- c. Remove coupling (5), packings (4), and disconnect adapter (6) from elbow (7).



To prevent damage to wires, carefully pull wires through components and hardware.

- d. Remove wires from connector (2) and carefully pull wires through adapter (6).
- e. Attach a 6 foot length of lacing tape to the wires.

f. Remove tube (9, detail B), coupling (11) and packings (10).

g. Remove no. 3 fuel tank dive vent check valve, couplings (11), and packings (10).

h. Remove probe guide (15, detail C), bolts (14, 12, and 13), gasket (16), and attaching parts.

i. Remove tube (28, detail D).

j. Disconnect tube (23) and disconnect clamp (29, detail G) from bracket (30).

k. Remove couplings (18, detail D), packings (17), and tube (19).

l. Remove coupling (24), clamp (21), and manifold (20) with attaching parts.

m. Carefully remove front panel (31, detail E) with defuel valve attached.

n. Disconnect tube (38, detail F) at elbow (37).

o. Disconnect elbow (34) or tube (42) from valve (39).

p. Disconnect nut assembly (40), and carefully pull wires through tubes (32 and 33 or 42), then untie lacing tape from wire and remove valve (39).

q. Remove elbow (37), nut (36), and packing (35).

2. INSTALLATION.

a. Do general preparation for component installation (WP013 00).



Petrolatum, Technical

2

b. Lubricate new packings with petrolatum.

c. Prepare valve (39, figure 1 detail F), nut assembly (40), bulkhead connector/retainer, elbow (37), nut (36), and tube (38) for electrical bond (A1-F18AC-LMM-000).

d. Install packing (35) nut (36), and elbow (37). Do not tighten nut (36).

e. Install packing (41) and nut assembly (40) on valve (39).

f. Position valve (39) below baffle and tie wires to lacing tape in tube (33).



To prevent damage to wires, carefully pull wires through components and hardware.

g. Carefully pull wires through tubes (32 and 33 or 42), then install valve (39 with nut assembly, (40). Tighten nut assembly (40) handtight .

h. Connect tube (38) to elbow (37) and elbow (34), or tube (42) to valve (39). Torque tube (42) or elbow (34) 75 to 140 inch-pounds. (QA)

i. Tighten nut (36).

j. Inspect for and remove any foreign objects from below baffle area. (QA)

k. Carefully position front panel (31, detail E) with defuel valve attached and install attaching parts.

l. Prepare mating surfaces of manifold (20, detail D), attaching parts and baffle for electrical bond (A1-F18AC-LMM-00).

m. Position manifold (20) and install packings (17), coupling (24), clamp (21) and attaching parts.

n. Connect tube (23) and connect clamp (29, detail G) to bracket (30) with attaching parts.

o. Position tube (19) and install packings (17) and couplings (18).

p. Install tube (28).

q. Install gasket (16, detail C), probe guide (15), bolts (12, 13 and 14), and attaching parts.

r. Install no. 3 fuel tank dive vent check valve (detail B), packings (10) and couplings (11).

s. Install packings (10) coupling (11) and tube (9).

NOTE

Wires from valve can be attached to either pin 5 or 6 in connector.

t. Untie lacing tape and route wires through adapter (6, detail A), then attach wires to either pin 5 or 6 in connector (2).

u. Install packings (4), connector and nut, make sure sleeve (5) is over adapter (6) and connector (3).

v. Make sure connector (2) nut is safetied with lockwire. (QA)

w. Install coupling (5), then connect adapter (6) and connector (1).

x. Do fuselage fuel tanks motive flow/transfer tubes coupling inspection (WP 013 01). (QA)

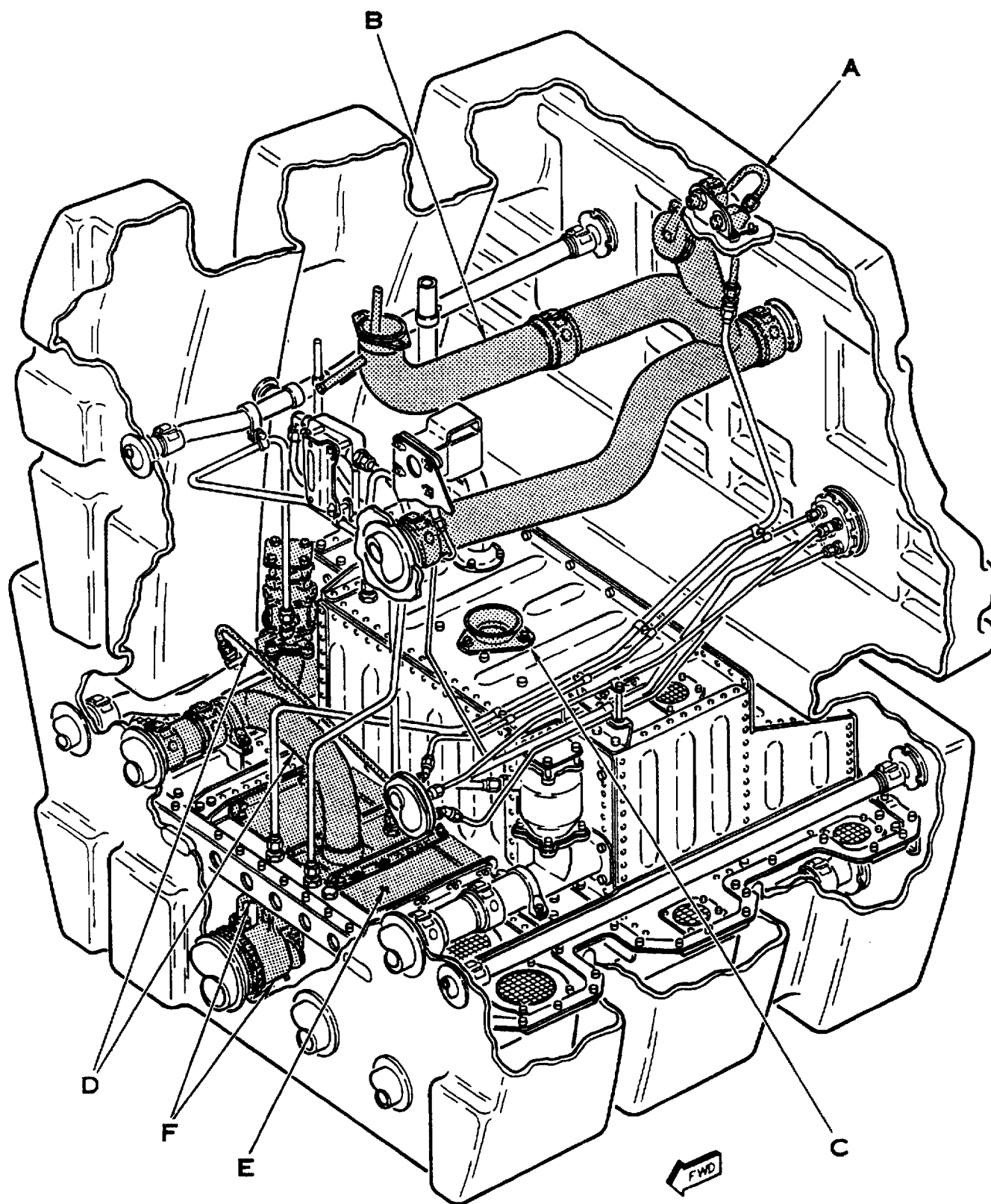
y. Install no. 3 fuel tank access cover (WP006 00).

z. Connect utility and emergency connectors (WP013 00).

aa. Do internal feed transfer and engine fuel supply system test (A1-F18AC-460-200, WP012 00).

3. ILLUSTRATED PARTS BREAKDOWN.

4. This illustrated parts breakdown has data required for identifying and ordering parts. The Manual introduction has more information on IPB data.



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Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 1)

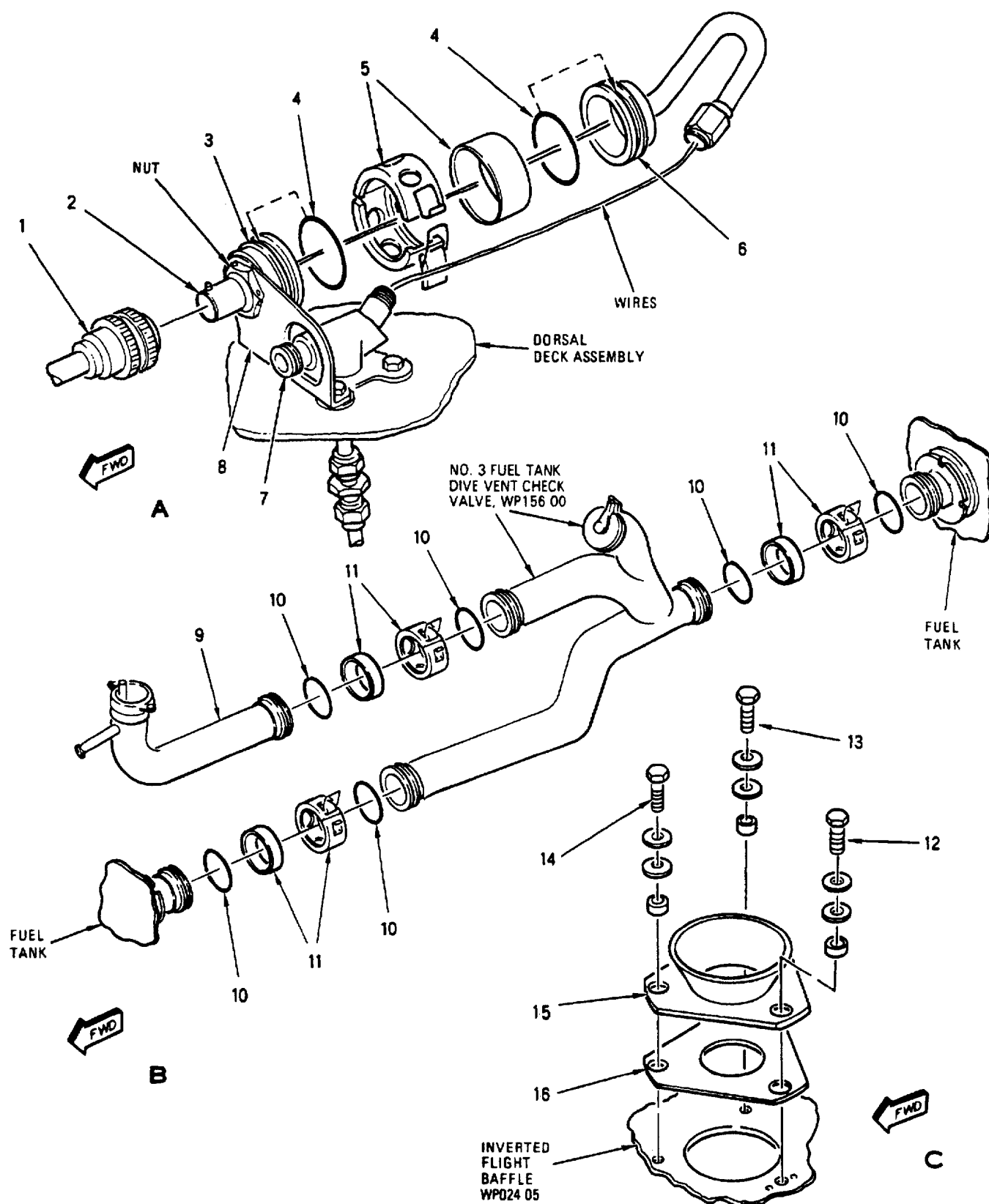
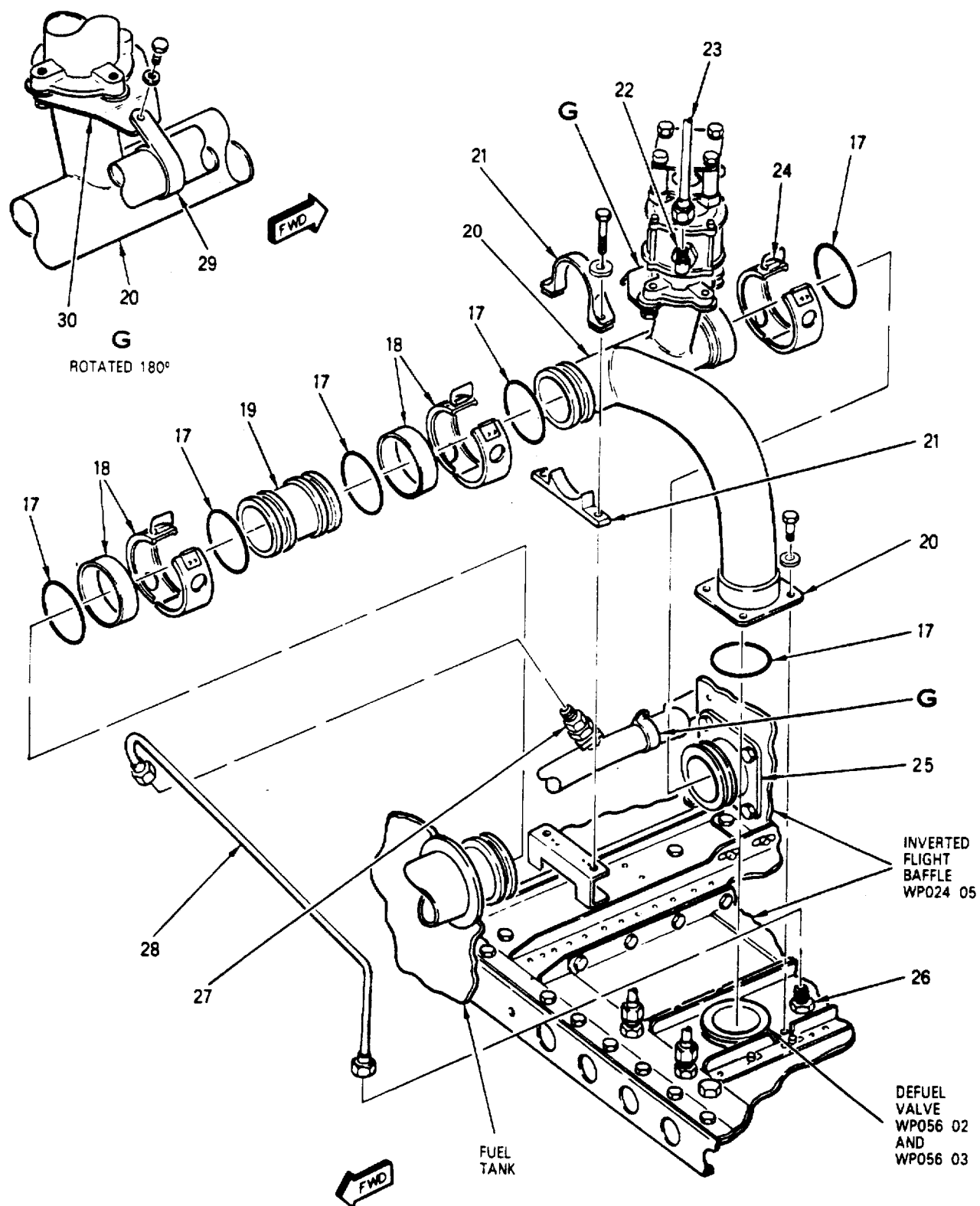


Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 2)

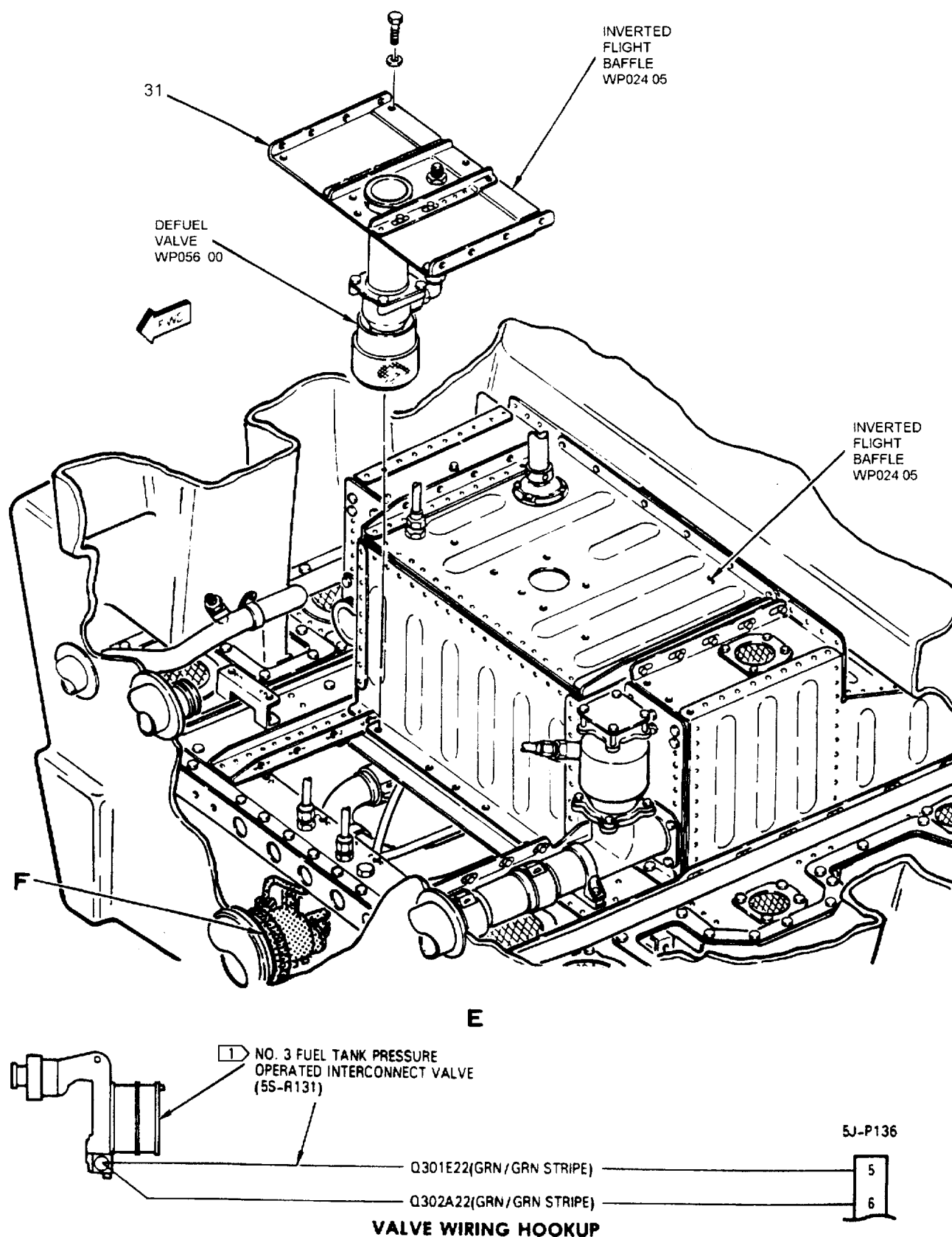
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11402013

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 3)



11402014

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 4)

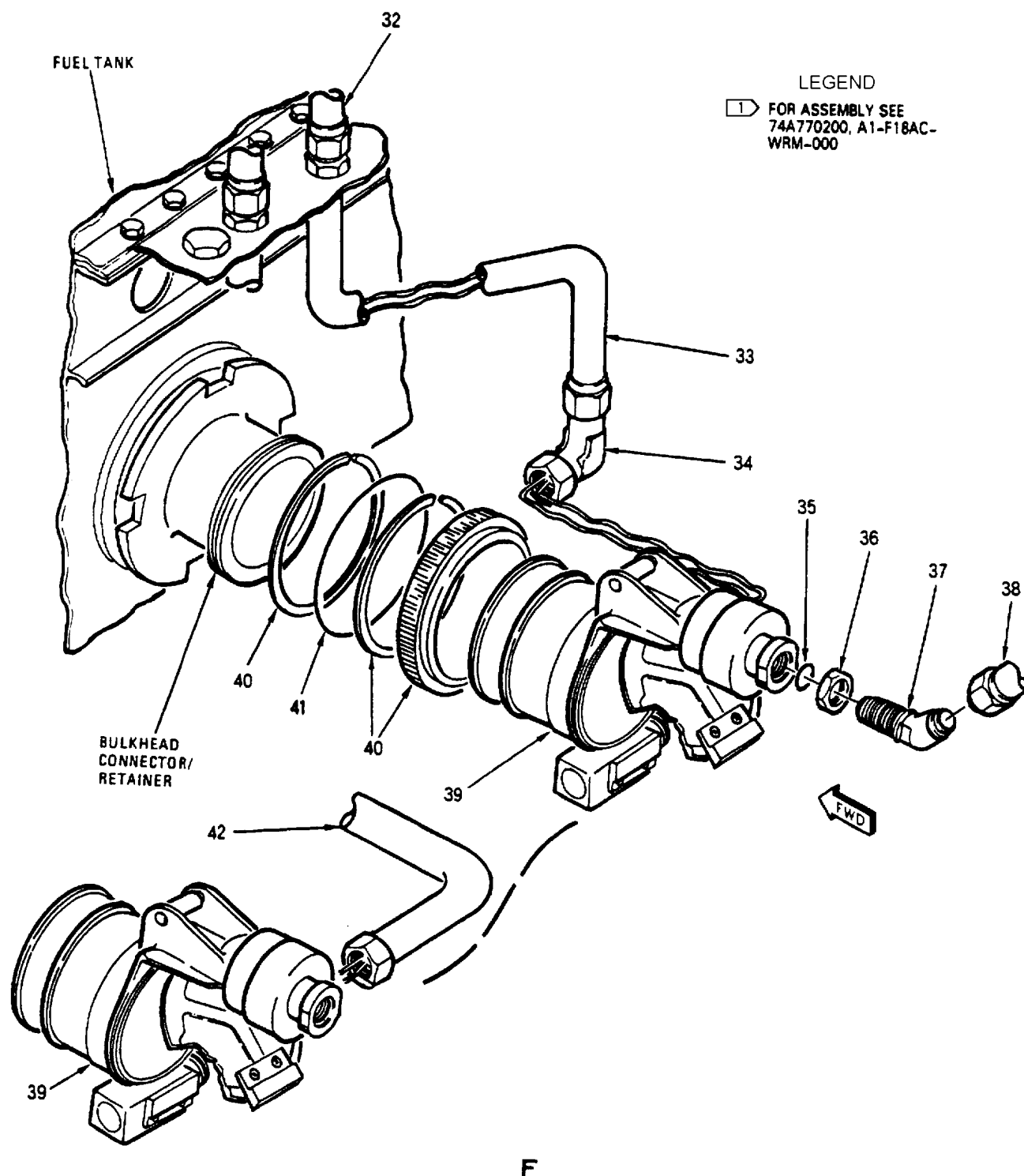


Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 5)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
		NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE (5S-R131)									
1	MS27467T11B35S	.	CONNECTOR, PL W (5P-P136)						1		PAOZZ
2	KJL7YC103451-3	.	CONNECTOR, RECEPTACLE, ELECTRICAL (71468) (MCDONNELL SPEC 5M1701-11D35PN) (INCLUDES NUT) (5J-P136)						1	*	PAOZZ
	92344-01	.	SEE ABOVE (14283)						1	*	PAOZZ
3	74A586694-2003	.	ADAPTER (76301)						1		XBOZZ
4	MS29513-222	.	PACKING						2		PAOZZ
5	W901K24DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-24D) (INCLUDES SLEEVE)						1		PAOZZ
	14J12-24A	.	COUPLING, CLAMP, GROOVED (24984) (MCDONNELL SPEC 7M765-24D) (INCLUDES SLEEVE)						1		PAOZZ
	W901F24DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M550-24D) (INCLUDES SLEEVE)						1	*	PAOZZ
6	74A586694-1001	.	ADAPTER - JUNCTION BOX, ELECTRICAL, FUEL SYS (76301)						1		XBOZZ
7	74A586255-1009	.	ELBOW, TUBE - 0.50 IN. LINE, VENT FUEL SYSTEM (76301) (SUPERSEDES 74A586255-1005 AND 74A586255-1001)						1		XBOZZ
8	74A586244-2093	.	BRACKET (76301)						1		XBOZZ
9	74A586381-1001	.	TUBE ASSY - CLIMB VENT, FUEL TANK NO. 3 (76301)						1		XBOOO
	NS103597-048	.	NUT, SELF-LOCKING, PLATE (80539) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 9)						2	*	PAOZZ
	F10965-1-3	.	NUT, PLATE (72962) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 9)						2	*	PAOZZ
	F29339-01-3	.	NUT, PLATE (15653) (MCDONNELL SPEC ST3M470C3M) (USE WITH INDEX 9)						2	*	PAOZZ
	MS20426AD3 #	.	RIVET (AP)						2		-
10	MS29513-230	.	PACKING						2		PAOZZ
11	W901K40DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M765-40D) (INCLUDES SLEEVE)						1		PAOZZ
	14J12-40A	.	COUPLING, CLAMP, GROOVED (24984) (MCDONNELL SPEC 7M765-40D) (INCLUDES SLEEVE)						1		PAOZZ
	W901F40DE	.	COUPLING, CLAMP, GROOVED (79326) (MCDONNELL SPEC 7M550-40D) (INCLUDES SLEEVE)						1	*	PAOZZ
12	NAS673V4	.	BOLT						1	C	PAOZZ
	NAS673V5	.	BOLT						1	D	PAOZZ
	4M36-01016	.	WASHER, FLAT (76301) (USE WITH INDEX 12)						2		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 12)						1	C	PAOZZ
	NAS43DD3-11	.	SPACER (USE WITH INDEX 12)						1	D	PAOZZ
13	NAS673V4	.	BOLT						1	C	PAOZZ
	NAS673V7	.	BOLT						1	D	PAOZZ
	4M36-01016	.	WASHER, FLAT (76301) (USE WITH INDEX 13)						2		PAOZZ
	NAS43DD3-8	.	SPACER (USE WITH INDEX 13)						1	C	PAOZZ

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 6)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
14	NAS43DD3-11	.	SPACER (USE WITH INDEX 13)	.....					1	D	PAOZZ
	NAS673V4	.	BOLT	.....					1	C	PAOZZ
	NAS673V6	.	BOLT	.....					1	D	PAOZZ
	4M36-01016	.	WASHER, FLAT (76301) (USE WITH INDEX 14)	.....					2		PAOZZ
15	NAS43DD3-8	.	SPACER (USE WITH INDEX 14)	.....					1	C	PAOZZ
	NAS43DD3-11	.	SPACER (USE WITH INDEX 14)	.....					1	D	PAOZZ
	74A586297-2001	.	GUIDE PROBE - FUEL QTY, TANK 2 & 3 (76301)	.....					1		XBOZZ
	74A586556-2001	.	GASKET, PROBE GUIDE - RAISED INVERTED BAFFLE TK 2 & TK 3 (76301)	.....					1	D	MDOZZ
17	MS29513-226	.	PACKING	.....					6		PAOZZ
18	W901K32DE	.	COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M765-32D1) (INCLUDES SLEEVE)	.....					2		PAOZZ
	14C12-32A	.	COUPLING, CLAMP, GROOVED (HALF) (24984) (MCDONNELL SPEC 7M765-32D1) (INCLUDES SLEEVE)	.....					2		PAOZZ
	W901F32DE	.	COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M550-32D1) (INCLUDES SLEEVE)	.....					2	*	PAOZZ
	74A586216-1005	.	TUBE ASSEMBLY, METAL - REFUEL, TANK NO. 2 (76301)	.....					1		XBOZZ
20	74A586317-1005	.	MANIFOLD, FUEL, AIRCRAFT - FUEL TANK NO. 3 (76301) (SUPERSEDES 74A586317-1001)	.....					1		XBOZZ
	NAS673V2	.	BOLT (AP)	.....					4		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					4		PAOZZ
	NAS1787A32G	.	CLAMP	.....					1		PAOZZ
21	NAS673V9	.	BOLT (AP)	.....					2		PAOZZ
	AN960JD10L	.	WASHER (AP)	.....					7		PAOZZ
	7M148V6	.	ELBOW, TUBE (76301)	.....					1		XBOZZ
	74A586341-1015	.	TUBE ASSEMBLY, METAL - PILOT VALVE RH PORT TO REFUEL V (76301) (SUPERSEDES 74A586341-1007 AND 74A586341-1011)	.....					1		MGOZZ
24	W904K32DE	.	COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M765-32D1)	.....					1		PAOZZ
	14C12-32A	.	COUPLING, CLAMP, GROOVED (HALF) (24984) (MCDONNELL SPEC 7M765-32D1)	.....					1		PAOZZ
	W904F32DE	.	COUPLING, CLAMP, GROOVED (HALF) (79326) (MCDONNELL SPEC 7M550-32D1)	.....					1	*	PAOZZ
	74A586248-2001	.	CONNECTOR, FLANGE (FITTING) (76301)	.....					1		XBOZZ
26	NAS674V3	.	BOLT (AP)	.....					4		PAOZZ
	AN960JD416L	.	WASHER (AP)	.....					4		PAOZZ
	7M637BT-6D	.	NIPPLE (76301)	.....					1	A	PAOZZ
	7M637BY-6D	.	ELBOW (76301)	.....					1	B	PAOZZ
27	7M637BD-6D	.	NIPPLE (76301)	.....					1		PAOZZ
	MS29512-06	.	PACKING (USE WITH INDEX 27)	.....					1		PAOZZ

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 7)

INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1	2	3	4	5	6	7			
28	74A586669-1017	.	TUBE ASSEMBLY, METAL - PRESS						1		MGOZZ
			SENR TO DEFUEL LINE, TK 3								
			(76301) (SUPERSEDES 74A586669-1013)								
29	MS25281-R20	.	CLAMP						1		PAOZZ
	NAS673V3	.	BOLT (AP)						1		PAOZZ
	AN960JD10L	.	WASHER (AP)						1		PAOZZ
30	74A586323-1035	.	BRACKET ASSY (76301)						1		XBOZZ
	MS21060L3	.	NUT, PLATE (USE WITH INDEX 30)						1		PAOZZ
	NAS1079AD3 #	.	RIVET (AP)						2		-
31	74A586315-2013	.	PANEL ASSY FRONT (76301)						1		XBOOO
			(FOR REPAIR SEE WP024 05)								
	NAS673V4	.	BOLT (AP)						AR		PAOZZ
	AN960JD10L	.	WASHER (AP)						AR		PAOZZ
32	74A586688-1003	.	TUBE ASSEMBLY, METAL - GRAVITY						1		MGOZZ
			FEED CONDUIT LINE, TANK 3								
			(76301) (SUPERSEDES 74A586688-1001)								
33	74A586687-1003	.	TUBE ASSEMBLY METAL - GRAVITY						1		MGOZZ
			FEED SIGNAL, TANK NO. 3								
			(76301) (SUPERSEDES 74A586687-1001)								
34	7M148V6 ‡	.	ELBOW (76301)						1		PAOZZ
35	MS29512-06	.	PACKING						1		PAOZZ
36	AN924-6D	.	NUT						1		PAOZZ
37	7M637BY-6D	.	ELBOW, TUBE (76301)						1		PAOZZ
38	74A586368-1005	.	TUBE ASSEMBLY, METAL - FILTER						1	C	MGOZZ
			TEE TO Y428 INTERCON								
			VALVE (76301)								
	74A587109-1009	.	TUBE ASSEMBLY, METAL -						1	D	MGOZZ
			MOTIVE, FLOW TO								
			INTERCONNECT VALVE (76301)								
			(SUPERSEDES 74A587109-1003								
			74A587109-1005 AND 74A587109-1007)								
39	55-7600-5	.	VALVE, INTERCONNECT,						1		PAOZZ
			FUEL PRESSURE OPERATED								
			(NO. 3 FUEL TANK PRESSURE								
			OPERATED INTERCONNECT								
			VALVE) (96736) (MCDONNELL								
			SPEC 74-580110-119) (5S-R131)								
			(REPLACES 55-7600-1, 41400-109)								
	74A580188-1001	.	SEE ABOVE (76301) (REPLACES						1	*	PAOZZ
			55-7600-1, 41400-109) (USE								
			UNTIL EXHAUSTED)								
	41400-111	.	SEE ABOVE (04192) (MCDONNELL						1	*	PAOZZ
			SPEC 74-580110-111) (REPLACES								
			55-7600-1, & 41400-109) (USE								
			UNTIL EXHAUSTED)								
	41400-109	.	VALVE, INTERCONNECT FUEL						1	*	PAOZZ
			PRESSURE OPERATED (TANK 3)								
			(NO. 3 FUEL TANK PRESSURE								
			OPERATED INTERCONNECT								
			VALVE) (04192) (MCDONNELL								
			SPEC 74-580110-109) (5S-R131)								
			(REPLACED BY 41400-111 OR								
			55-7600-5) (USE UNTIL EXHAUSTED)								
40	W702-40D	.	NUT ASSEMBLY, TUBE COUPLING						1	*	PAOZZ
			(79326) (MCDONNELL SPEC								
			ST7M191-40D) (INCLUDES NUT								
			AND 2 WASHERS)								
	12H72-40A	.	SEE ABOVE (24984)						1	*	PAOZZ
41	MS29513-334	.	PACKING						1		PAOZZ

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 8)

INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE	SM&R CODE
		1 2 3 4 5 6 7			

42	74A586687-1007 ¢	TUBE ASSEMBLY, METAL - GRAVITY FEED SIGNAL, TANK NO. 3 (76301)	1		MGOZZ
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* ALTERNATE OR EQUIVALENT
PARTS. (WP002 00)

LENGTH/SIZE TO BE DETERMINED
AT INSTALLATION.

‡ MUST BE USED WITH
74A586687-1001,
74A586687-1003 OR
74A586687-1005

¢ REPLACEMENT PART FOR
74A586687-1001, 74A586387-1003 OR
74A586387-1005, DOES NOT USE ELBOW.

CODE	USABLE ON	MODEL
A	161716 THRU 161720 BEFORE F/A-18 AFC 18	F/A-18A/B
B	161721 & UP	F/A-18A/B
C	161716 THRU 161761 BEFORE F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B
D	161924 & UP: ALSO 161353 THRU 161761 AFTER F/A-18 AFC 18 AND F/A-18 AFC 53	F/A-18A/B

Figure 1. No. 3 Fuel Tank Pressure Operated Interconnect Valve (5S-R131) (Sheet 9)